The Role of Chatbot Marketing Efforts in Enhancing Customer-Brand Relationships for the Finnish Fashion Brands

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Abstract

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This study investigates the impact of chatbot marketing efforts on customer-brand relationships and engagement in the Finnish fashion industry. The primary goal of the research was to identify how customer engagement could be improved through chatbot marketing efforts.

The theoretical background discusses tech-powered marketing, including conversational and augmented marketing approaches, the application of chatbots in marketing, the chatbot communication quality, and its correlation with customer-brand relationships and engagement. The empirical part evaluates the chatbots of local fashion brands, explores the extent of chatbot application among users, the effect of chatbot marketing on customer-brand relationships, and discovers how the chatbot user experience can be ameliorated.

The study employed both quantitative and qualitative methods. First, the heuristic evaluation of the fashion brands' chatbots was conducted. Second, the survey was administered to 97 participants with prior chatbot interaction experience, and which results were analyzed with the help of IBM SPPS statistics software.

The results showed that Finnish fashion brands are scarcely adopting chatbots, and these menu-based basic types of chatbots are lacking entertainment and customization features. The survey revealed that users primarily utilize chatbots in e-commerce and financial services on a monthly or quarterly basis. In terms of user perception of their selected brands' chatbot marketing properties, users' reactions were moderately positive and partially consistent with the prior research. Respondents found the accessibility, interaction, and information satisfactory, while customized assistance and entertainment were met with skepticism. The respondents acknowledged the chatbot's easiness of use and response time effectiveness, but valued accuracy and trustfulness as low. Chatbot customization was discovered to have a positive impact on brand satisfaction and loyalty.

The user insights exposed that there is a potential for fashion brands to accommodate chatbots more intensively on their platforms. Along with the practical chatbot functionalities like orders, and delivery, it is recommended to fashion brands emphasize customization and entertaining features to promote affective engagement with the brand. Moreover, the brand should ensure the communication quality of the chatbots.

Key words
Chatbot Marketing Efforts (CMEs), conversational marketing, augmented marketing, chatbot communication quality, customer-brand relationships, customer engagement

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1 Introduction

This is a research-based thesis for the Degree Program in Business Service Solutions and Languages in the major specialization of Marketing, Sales, and Services at the Haaga-Helia University of Applied Sciences. The purpose of this chapter is to present the objective of the research and the research topic.

This chapter covers the background of the thesis topic, its relevance, and the benefits for the researcher as well as for the marketing community. Further, the research question and the investigative questions are established. Following that, the demarcation criteria is identified. Finally, the key concepts as well as the theoretical approach are introduced.

1.1 Background

The thesis explores the effect of AI-powered chatbot marketing efforts on customer-brand relationships. Particularly, the work focuses on the fashion industry in the Finnish market. The aim is to identify how chatbot usage may contribute to the increase in customer engagement with Finnish fashion brands.

Artificial Intelligence (AI) technology is booming in society and benefits many business industries, including fashion. It alters and revolutionizes the sector in several spheres, including design, production, marketing, and sales (The Tech Fashionista 2021). The field of conversational marketing, enabled by intelligent AI-powered chatbots, has been gaining traction (Giosg 2021). Chatbot digital solutions are replacing conventional customer service models for a growing number of brands (Forbes 2017, Sproutsocial 2018).

Customers are now able to interact with virtual marketing service agents at any time and from anywhere through AI-driven chatbots, which have been credited with positively transforming their experience (Cheng & Jiang 2020, 592). By utilizing human-computer interaction, brands can develop a deeper relationship with their customers and cultivate engagement among them (Huang & Rust 2018, 155).

According to the forecast of Business Insider (2022), the chatbot market has become the fastest-growing market, reaching $142 billion by 2024 in contrast with $2.8 billion in 2019. In particular, the CIVID-19 pandemic was one of the drivers that contributed to the customer behavior shift: due to the lockdown and, consequently, the unavailability of human agents, users had to rely heavily on online tools when making decisions on product purchasing and brand selection (Cheng & Jiang 2022, 292).

Finland is one of the leading European adopters of AI technologies in various spheres, taking the 3rd place with an adoption rate of 16% after Denmark (24 %) and Portugal (17 %) (Digital Economy and Society Index (DESI) 2022, 55). It is also considered to be one of the most active in terms of chatbot usage (Finnish Industrial Internet Forum, 2022). Even so, there is still considerable room for improvement in the Finnish fashion sector, which could benefit by integrating AI-driven chatbot marketing solutions. So far, there has been a lack of sufficient research on how the utilization of chatbots can foster brand-customer relationships. Thus, the goal of this thesis is to investigate whether chatbot marketing efforts have any impact on customer-brand relationships, and engagement, and to identify potential focus areas for further development.

1.2 Research Question

This thesis aims to identify the influence of AI-powered chatbot marketing efforts on the quality of customer-brand relationships. The thesis findings could become a useful reference for the local marketing community involved in marketing activity automation. The knowledge generated can enable Finnish fashion brand managers to understand the influence of conversational marketing on customer engagement and offer recommendations for creating successful CMEs strategies.

The research question (RQ) of this thesis is:

How customer-brand relationships could be improved by means of chatbot marketing efforts (CMEs) in the Finnish fashion industry?

The research question was divided into four investigative questions (IQs) as follows:

IQ 1. In which dimensions (interaction, information, accessibility, entertainment, and customization) do Finnish fashion brands utilize chatbots in their marketing approach?

IQ 2. How widely do customers use chatbots?

IQ 3. How does the chatbot's communication quality impact customer-brand relationships and engagement?

IQ 3. How could the chatbot user experience be ameliorated?

Table 1 below presents the investigative questions, theoretical framework components, research methods, and results chapters for each investigative question.

Table 1. Overlay matrix

Investigating questions	Theoretical Framework (chapter)	Research Methods	Results (chapter)
IQ 1. In which dimensions (interaction, information, accessibility, entertainment, and customization) the Finnish fashion brands utilize chatbots?	2.1 2.2 2.2.1 2.2.2	Chatbots usability heuristic evaluation of the fashion brands' chatbots	4.1
IQ 2. How widely do customers use chatbots?	2.2 2.2.2 2.3	Statistical analysis of the quantitative - survey data Survey questions: 1–4, 13–17	4.2 4.3
IQ 3. How does the chatbot's communication quality impact the customer-brand relationships?	2.3 2.4	Statistical analysis of the quantitative - survey data Survey questions: 4–8	4.3 4.4 4.5 4.6 4.7
IQ4. How the user experience could be ameliorated?	2.2.1 2.2.2 2.3 2.4	Statistical analysis of the quantitative - survey data Survey questions: 9–12	4.8

1.3 Delimitation

Since the study is predominantly concerned with the application of chatbots in the context of fashion e-commerce, customer service, and the development of customer-brand relationships, the background, and history of the chatbot development, as well as their technical characteristics seem not to bring much value for the research outcomes analysis and, therefore, will not be the focus of our attention. The application of chatbots in marketing will be approached mostly from the perspective of their effectiveness in promoting customer-brand relationships and engagement.

To analyze the chatbot marketing efforts of Finnish fashion brands, only those implemented on the fashion brands' official websites will be considered. We will exclude any other local sphere of chatbot application, such as travel or banking, as well as any other social media platforms, such as Facebook or Twitter. This will allow us to focus specifically on the chatbot marketing efforts implemented by Finnish fashion brands and obtain a more targeted analysis.

Customer-brand relationships, engagement, and the perception of the chatbot's communication quality will be studied based on the survey, which focuses on objective and quantifiable "hard" data. Respondents will be selected based on a non-random principle to include only those interested in the topic with relevant user experience. This approach will enable us to obtain meaningful insights into customer-brand engagement and the perception of chatbot communication quality while eliminating non-relevant feedback from users who have not previously interacted with

any type of chatbot. Thus, Figure 1 below summarizes and explicitly depicts who and what will be the primary focus of the research.

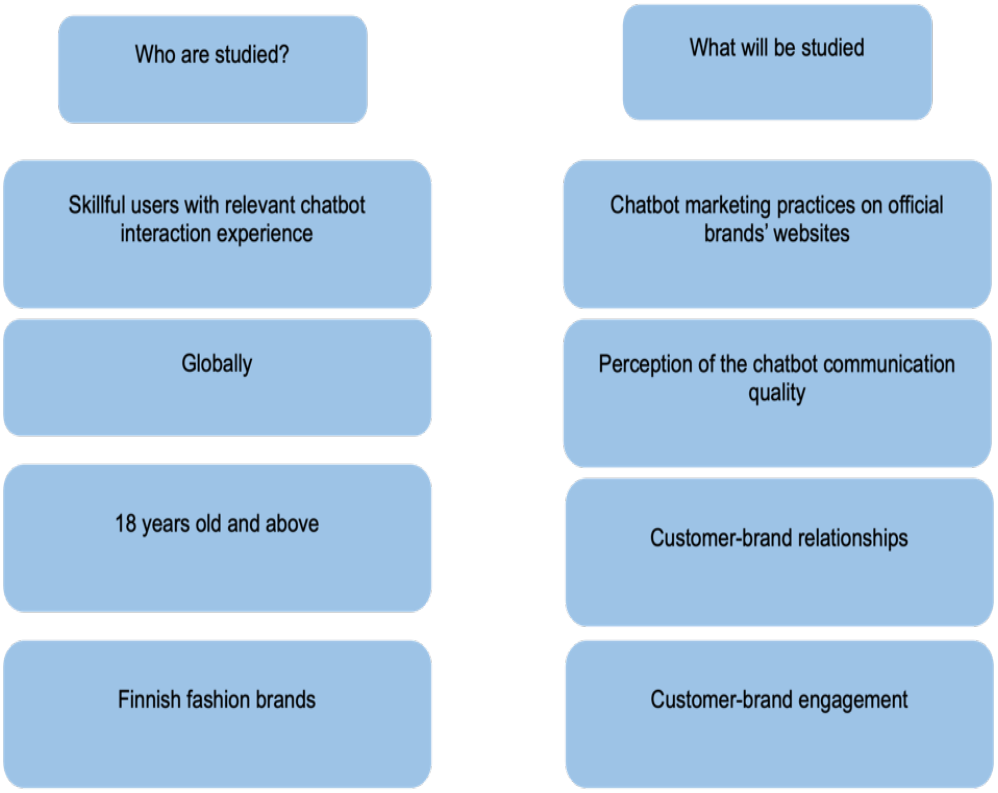

Figure 1. Visualization of the primary focus of the research

1.4 Key concepts

Below there are listed the major concepts from the thesis topic which enable a better comprehension.

Augmented Marketing – the form of marketing, utilizing human-mimicking technologies, like virtual assistants or chatbots, is also heavily reliant on the data and aligned with the agile way of making marketing decisions (Kotler et al. 2021, 169–180).

Conversational Marketing – the approach of capturing and qualifying leads via real-time conversations. This dialogue-driven approach allows the business to engage the website visitors. The dialog is managed by the intelligent chatbots which send targeted, real-time messages and encourage leads to interact with the business. (Cancel & Gerhardt 2019, 13.)

Chatbot Marketing Efforts (CMEs) – a new type of marketing communication supported by AI-driven chatbots (Appel et al. 2020, 83). Bots can change the customer experience by shifting the

product- or service-focused interaction toward communication with an efficient computer decision-making platform (Klaus & Zaichkowsky 2020, 392). They act along with five key dimensions: interaction, information, accessibility, entertainment, and customization (Chung et al 2018, 589).

Customer-Brand Relationships (CBRs) – refer to the various ways in which customers connect with the brand and build loyalty to it. These connections may include brand attachment, brand love, self-brand connection, brand identification, brand trust, and brand engagement. (Khamitov et al. 2019, 435.)

Customer engagement – is defined as “the level of a customer’s motivational, brand-related, and context-dependent state of mind characterized by specific levels of cognitive, emotional, and behavioral activity in brand interactions” (Brodie et al. 2011, 254).

Artificial Intelligence – the ability of the system to interpret external data properly, to learn from it, and use that knowledge to achieve specific goals and tasks through flexible adaptation. This concept is typically associated with robotics (e.g., chatbots), NLP (Natural Language Processing), and machine learning. (Haenlein & Kaplan 2019, 5.)

Chatbots – a software tool that interacts with users on a certain topic or in a specific domain in a natural, conversational way using text and voice (Smutny & Schreiberova 2020, 1).

2 Defining the effect of AI-powered chatbots on customer-brand relationships and engagement

The major objectives and background of the research were described in the preceding chapter. Furthermore, the author delimited the research scope, identified the benefits, and established key concepts relevant to this study. With the anticipated outcomes and goals in mind, it is reasonable to proceed with the theoretical foundation of the following empirical study.

The theoretical framework of the research is discussed in this section, and the concepts requisite for understanding the phenomena related to the topic are outlined. First, a summary of the theoretical framework is provided. Following that, tech-powered marketing, including conversational marketing and augmented marketing approaches, with their corresponding tools are explained. Then, the application of chatbots in marketing with the presented typology, benefits, and limitations will be discussed. The chatbot's communication quality and its interconnection with brand-customer relationships and engagement will be discovered in the final sections.

Figure 2 below describes the theoretical concepts of the study and their interconnection. It visually explains and helps the reader understand how the AI-powered chatbot conversational marketing, mediated by the chatbot communication quality, influences customer-brand relationships and customer response in the form of engagement with the fashion brand.

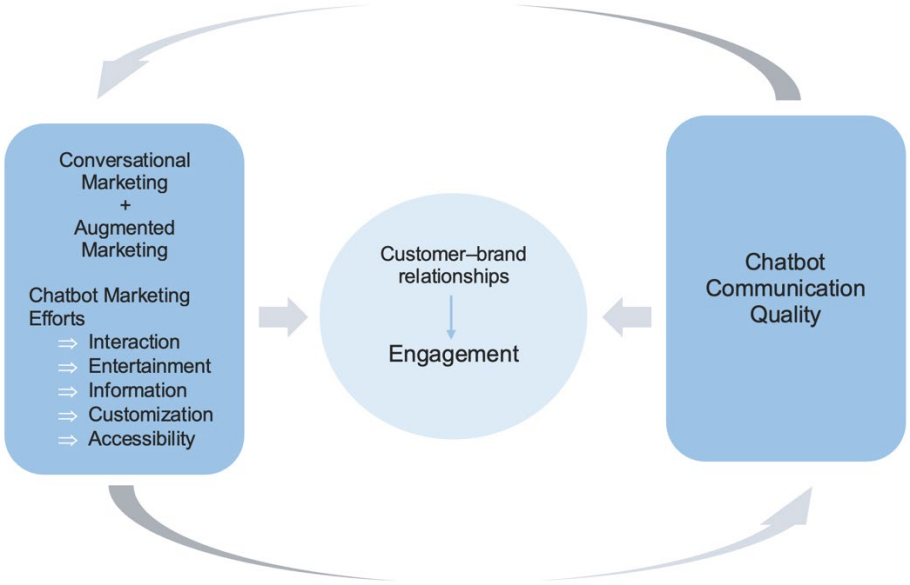

Figure 2. Visual presentation of the theoretical concepts and their interrelation

2.1 Augmented and conversational approaches in tech-powered marketing

The technical landscape is the crucial factor that affects the fashion brand's capability to reach the market and establish strong relationships with customers (Solomon & Mrad 2022, 122). In the age of total transparency on the Internet, customers are looking for an authentic connection with their preferred brands, and businesses should use various digital technologies to interact and engage more with customers (Kotler et al. 2021, 118–126). Philipp Kotler, the Professor Emeritus of Marketing, with his co-authors in one of his latest works (2021, 6–10), introduces the concept of so-called Marketing 5.0 which leverages technologies such as AI, NLP, sensors, robotics, augmented reality (AR), virtual reality (VR), IoT, and blockchain. These technologies allow marketers to create, communicate, deliver, and enhance value across the customer journey (Kotler et al. 2021, 6).

In essence, technology enables marketing to be data-driven, predictive, contextual, augmented, and agile (Kotler et al. 2021, 12–14) as shown in Figure 3 below.

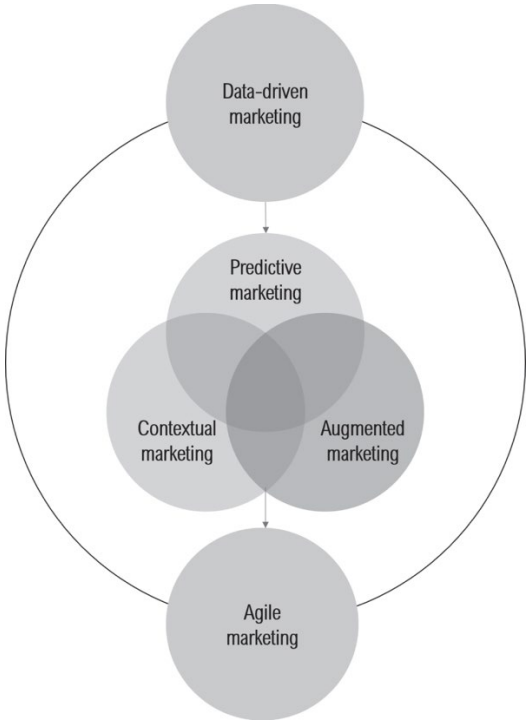

Figure 3. Key elements of the current digital marketing (also called Marketing 5.0) (Kotler et al. 2021, 17)

To specify, data-driven marketing involves the collection and analysis of big data to inform future marketing decisions (Kotler et al. 2021, 129–141). Meanwhile, agile marketing focuses on swift and almost immediate adaptation to the changing needs and environment (Kotler et al. 2021, 181–191). Both marketing practices are interwoven with predictive marketing, utilizing analytics to anticipate the outcomes of any marketing decisions (2023 Adobe Digital Trends, 14; Kotler et al. 2021, 143–153). Additionally, they are interwoven with the contextual marketing approach, personalizing

and tailoring consumer interactions (Kotler et al. 2021, 157–168). In addition, an augmented form of marketing, utilizing human-mimicking technologies, like virtual assistants or chatbots, is also heavily reliant on the data and aligned with the agile way of making marketing decisions. In this study, the augmented marketing approach presents a high level of interest and importance (Kotler et al. 2021, 169–180.)

Kotler (2021, 170) argues that augmented marketing is based on the idea of intelligence technological amplification, or IA, rather than human intelligence substitution or replication. This IA premise makes sense, particularly in the business spheres that heavily rely on human-to-human interactions, such as, for example, selling and customer service, where humans are still dominant in decision-making, and technological advancements are used to support the process (Kotler et al. 2021, 170). From the sales perspective, chatbots turn out to be effective digital tools for capturing, nurturing, qualifying, and connecting with more promising leads throughout the customer journey of the sales funnel, as shown in Figure 4 (Cancel & Gerhardt 2019, 12–13; Kotler et al. 2021, 172–176). Figure 4 describes the whole process, starting from the chatbot messaging medium, building, first, awareness by providing relevant information or recommendations on the product, qualifying, and capturing leads data. Following that, the human sales team finalizes the acquisition of the customer by negotiating and closing the sales. (Cancel & Gerhardt 2019, 12–13; Kotler et al. 2021, 173.)

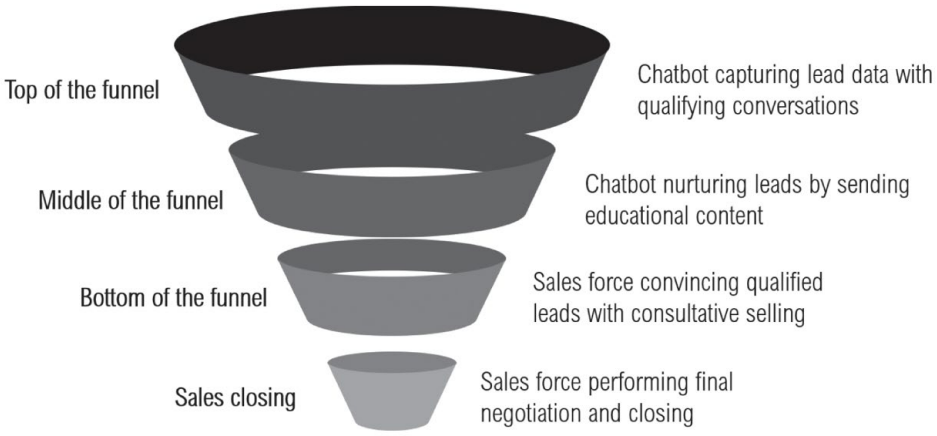

Figure 4. The overview of the customer lifecycle lead generation funnel enabled by the augmented human-tech approach (Kotler et al. 2021, 173)

Additionally, the augmented approach in marketing also emphasizes the value of interactions in customer service as a potential way to build customer loyalty and engagement, which could be enhanced by chatbots and virtual assistants. Thus, the companies can feed large datasets derived

from various online sources, such as forums or live chat scripts, into their machine learning algorithms to provide customers with convenient and fast solutions. (Kotler et al. 2021, 174–175.)

The previously discussed augmented approach in marketing is also connected to the conversational marketing approach. This term was introduced by David Cancel, the co-founder and the CEO of Drift, a software company headquartered in Boston (Cancel & Gerhardt 2019, 15). Conversational marketing is characterized as a "messaging-based, customer-centric approach to engaging with customers in real-time by answering their questions, acknowledging their feedback, and offering new solutions" (Cancel & Gerhardt 2019, 13; Tiinus, Giosg).

Conversational marketing is part of a holistic, integrated inbound marketing strategy based on the attraction of customers through the channels they prefer (Miller 2015, 16; Tiinus, Gisg). The conversational approach in this context is referred to as a method of interacting with customers via preferred channels (Tiinus, Gisg), while adhering to key inbound principles, including transparent "information, online authenticity, personalization, contextualization, a standardized way of communication, data-driven decisions, performance measurement, optimization, and automation" (Collins 2021, HubSpot; Miller 2015, 17).

The guiding principles of the conversational framework (Cancel & Gerhardt 2019, 30, 45; Collins 2021, HubSpot) are described as follows:

- Adopting conversations to the customer's time
- Taking conversations with multiples customers simultaneously
- Contextualizing the conversations based on the data, elicited from the previous orders, searches, inquires, etc.
- Adopting conversational channels to the consumer preferences

These previously outlined principles allow the conversational marketing approach to benefit the business in multiple ways. First, it enables a better customer experience due to the targeted, personalized, relevant, 24/7 messaging in a meaningful way for the customer (Collins 2021, HubSpot; Drift 2023; Tiinus, Giosg). By getting immediate customer insights, the business more effectively understands and learns their needs and pain points (Drift 2023; Tiinus, Giosg), which creates the ground for enduring customer-brand relationships (Collins 2021, HubSpot).

Second, the conversational approach improves lead generation by providing prospects with interactive channels to engage with the band, and, on the other hand, more effectively qualifies leads by asking meaningful questions in a suitable context, making the customer journey less effortless (Cancel & Gerhardt 2019, 28–29; Tiinus, Giosg).

2.2 Chatbots as conversational user interfaces

Human-computer interaction systems, known as chatbots or virtual service agents, have become efficient conversational interfaces that allow enhancing customer experiences and fulfillment of expectations through real-time interactions (Chung et al. 2020, 587; Cordero et al. 2022, 2). A chatbot could be defined as a software application that simulates and interprets written or spoken human dialogue, allowing users to interact with digital gadgets in the same way they would interact with actual people (Mordor Intelligence, 2023; The Business Research Company 2023). It can range from simple one-line programs that respond to a simple question to sophisticated digital assistants that learn and adapt as they collect and process data to create increasingly personalized experiences (The Business Research Company 2023).

Several recent reports (Grand View Research 2023; Mordor Intelligence, 2023; Grand View Research 2023; The Business Research Company 2023) indicate that, within the last year, from 2022 to 2023, the global chatbot market has witnessed an increase from $5 billion to almost $7 billion at a compound growth rate of 27.1 %. The market is expected to continue its growth expanding by around 23 %–27 % till 2030.

Gartner, a research and consulting firm, predicts that by 2027 virtual assistants (VBAs) will become the primary customer communication channel (Costello & LoDoce 2022, Gartner). This growth could be attributed to the expanded customer demand for self-service, and it is heavily driven by the increasing operations' automation by businesses to reduce costs. (Grand View Research 2023.) Regarding the spheres of application, chatbots are widely employed in various end-user segments, including dominating retail and e-commerce with a market share of 30.34 % in 2022, followed by BFSI (banking, financial services, and investments), healthcare, IT and telecommunication, retail, travel, and hospitality (see Figure 5) (Grand View Research 2023).

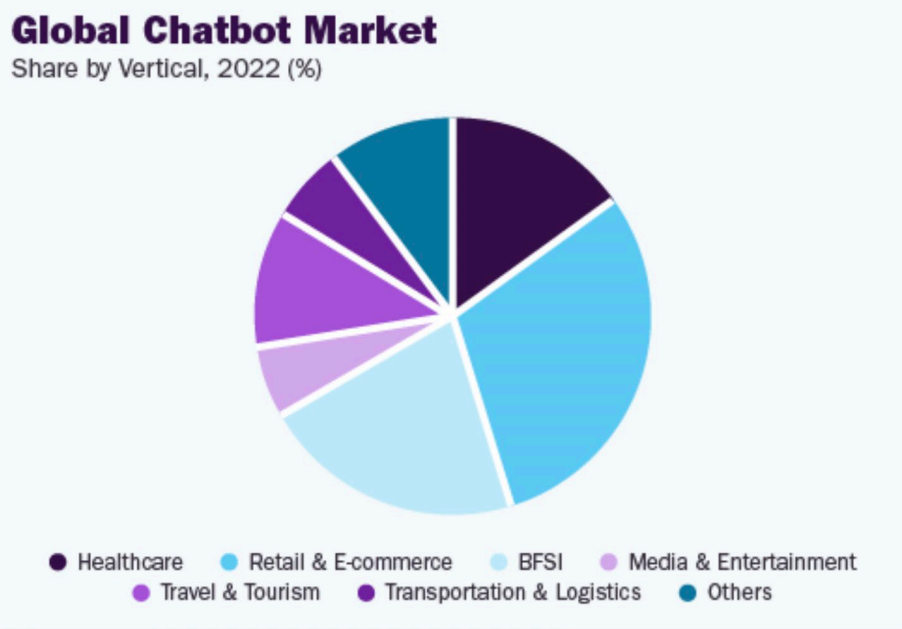

Figure 5. Vertical outlook of chatbot market share by end-user (Grand View Research 2023)

2.2.1 Chatbot typology

Before exploring the conceptualization of chatbot marketing strategy in the fashion industry, it seems reasonable to briefly approach the chatbot typology, its benefits, and its limitations. As could be seen in Table 2, the main types of chatbots are menu/button-based, linguistic /rule-based, keyword recognition-based, and Machine Learning (ML) (Grand View Research 2023; Hawkins 2023; Medium 2021).

Table 2. Major chatbot types and their characteristics (Grand View Research 2023; Hawkins 2023; Medium 2021)

Type	Characteristics	Benefits	Limitations	Potential Application Areas
Menu/ button-based	Ready-made knowledge base, FAQs	– No advanced coding skills needed – Cost-efficient – Conversation flow control – Available 24/7	– Robotic interaction	– Placing orders – Demo scheduling – Newsletter subscription – Feedback – Lead generation forms – Website navigation – Product search
Rule-based/ linguistic bots	Based on conditional if/then logic	– Lower cost – Fast training – Compatibility with older software	– Robotic interaction – Unable to learn independently	– Ticket booking – Information search & product search

Type	Characteristics	Benefits	Limitations	Potential Application Areas
		– High level of security – Interactive media elements and media incorporation – 24/7 availability	– Manual updates required	
Keyword recognition-based	NLP technology based	– Constant learning – Fast adaptation – More extensive ser input – More natural conversation – 24/7 availability	– Unable to detect emotional expressions (irony, sarcasm, etc.) – Lack of languages representation – Text errors	– Information and product search – Basic problem-solving
Contextual/AI-based chatbots	ML technology based	– Application of the user contextual data (e.g. name, etc.) – Complex queries analysis – More accurate, personalized problem-solving – Interaction in many languages	– Big tech support team needed – Reasonable only for large number of operations per day – Big dataset feeding – Long implementation process	– Customer service automation – Recommendations – Customized advertisement and recommendations

Menu- or button-based chatbots are the most basic interfaces, which offer an options menu for the users. They are mostly able to deal with the FAQs, suggest sources of relevant information, and smoothly navigate through the website. At the same time, they lack sufficient knowledge to tackle more advanced cases, considerably impeding the user experience. (Bjorkqkwist 2022; Kisling 2022; Aivo; Medium 2021.)

The following type of chatbot, a rule-based or linguistic bot, applies conditional logic related to if/then statements when it is required, first, to set language conditions for words, expressions, synonyms, etc. When the user's request somehow coincides with the programmed logic, the output is provided. This means that chatbot competence is solely dependent on the predefined rules, which should be properly elaborated for each word combination, which may be challenging and time-consuming for businesses. Though it has obvious functional limitations, it is still widely

adopted because of its security, affordability, and easy integration with a lot of legacy systems. (Aburger 2018, Nubtype; Hawkins 2023, Giosg; Saxena 2021; Medium 2021.)

The keyword recognition-based chatbot is a more advanced version that uses natural language processing (NLP) technology. Thus, the bot is more intelligent at analyzing more complex, freely formulated queries with greater accuracy. Still, despite its more sophisticated nature, it is constrained in reacting to repeated keywords and may provide misleading and inadequate responses. Therefore, quite often, brands adopt a hybrid version of menu-based and NLP chatbots. (Discover Bot 2020; Hawkins 2023; Medium 2021.)

Finally, the most advanced type of chatbot is based on machine learning and AI, which allow it to learn from previous user conversations and the context surrounding them. These bots can store large sets of contextual data, which positively influences the accuracy and customization of the responses. (Hawkins 2023; Kisling 2022; Nguyen et al. 2022, 2; Saxena 2021.)

2.2.2 Chatbots in marketing

Marketing and sales are among those business functions, like finance, IT services, and HR, that increasingly adopt chatbots in their operations, with a market share amounting to 39.5% in 2022 (Grand View Research 2023). From a marketing perspective, future-oriented businesses are employing chatbots to automate high-frequency and mid-complexity interactions with their respective audiences in a cost-effective way. Chatbots can be used as a tool for both basic and complex digital marketing strategies. Thus, simple chatbot marketing strategies focus on customer service and FAQs, while more advanced ones leverage the chatbots for lead generation, contextual customer data gathering, and shopping experiences, which strengthen brand-customer relationships with the target consumers. (Pophal 2022, 39.)

Among the different industries, fashion represents a breeding ground for stimulating the implementation of chatbots for managing customer relationships (Murtarelli et al. 2022, 720). In the fashion industry, chatbots are considered e-service agents. They perform similar roles as offline sales assistants, who traditionally determine the success of service exchanges, represent the brand, enhance customer-brand relationships, provide useful information, and ensure emotionally engaging and enjoyable overall shopping experiences (Chung et al. 2020, 587). Similarly, the chatbots interact with shoppers through a reciprocal dialog and collect data by asking questions and analyzing customer buying patterns (Schmelzer 2018, Forbes; Solomon & Mrad 2022, 127).

Chatbots generally act as brand representatives in e-commerce settings, where they communicate with customers in a two-way, interactive, and private manner, as opposed to the one-to-many

brand communication on social media (Li & Wang 2023, 3). Similar to personal selling, one of the pillars in the fashion promotional mix, chatbot technological advancement allowed fashion retailers the adoption of the so-called “Clienteling” method, which aimes to build stronger relationships with customers based on the data about their preferences, activities, and consumptions. According to Solomon and Mrad (2022, 325–326), the “Clienteling” strategy applies three features:

- “360-degree view” of the customer’s information including the shopper’s wish lists, buying size, previous shopping history, apparel size, likes, and dislikes, which could assist sales representatives in providing more accurate recommendations
- personalized 1:1 communication implying the customer-tailored recommendations, promotions, and loyalty programs sent directly through the apps
- seamless checkout experience meaning that the customer should be able to finalize their purchasing, transaction, decision-making process, or service inquiry without waiting

In the realm of online shopping, virtual assistance is highly appreciated by customers (Verma 2019). Chatbots, which are designed to act like human frontline employees (Ruan & Mezei 2022, 2), communicate with customers via different touch points along three different customer journey stages: pre-purchase, purchase, and post-purchase (Cordero et al. 2022, 3; Silva et al. 2023, 258; Rese et al, 2020, 2). To specify, at the outset of the customer journey, the chatbots customize the recommendations or ads based on the elicited contextual user data. Then, during the purchase phase, the customer is navigated through the website and attracted by the available sales or campaigns. Finally, the chatbot cares about the customer by tracking the delivery process and providing information about the return policy or any other relevant product-related materials. (Cordero et al 2022, 3; Rese et al. 2020, 2.)

Given the prevalence of chatbots in various business practices, several fashion apparel and beauty brands use this technology, such as Burberry, Sephora, Zara, Louis Vuitton, Tommy Hilfiger, Levi's, H&M, Sephora, Uniqlo, Victoria's Secret, and Estee Lauder (Cheng & Jiang 2020, 593; Chung et al. 2020, 589; Li & Wang 2023, 2; Solomon & Mrad 2022, 127).

The growing trend for chatbot applications in various spheres did not go unnoticed by scholars, who started researching how people interact with this technology (Rapp et al 2021, 1). Despite the increasing number of chatbot studies, the knowledge of how chatbots are adopted by fashion brands worldwide and how this is perceived by shoppers is limited. Likewise, limited attention has been paid to chatbot marketing efforts (CMEs), understood here as brand marketing communication via virtual agents (Silva et al 2023, 285; Cheng & Jiang 2022, 254). The synthesis of the relevant literature is presented in Table 3.

The first one who started to examine the CMEs in the luxury fashion industry and investigate their associations with chatbot communication quality and customer satisfaction (Cheng & Jiang 2020, 593; Cheng & Jiang 2022, 253; Cordero et al. 2022, 3) was Chung with co-authors (Chung et al. 2020, 587–595). They identified five marketing efforts such as *entertainment, interaction, trendiness, customization, and problem-solving* in the context of e-service agents (Chung et al. 2020, 588). Later, Cheng and Jiang (Cheng & Jiang 2022, 252–264) also extended the discussion on the CMEs and their components, highlighting *interaction, information, accessibility, entertainment, and customization* as their major dimensions, as adapted in the current study.

Table 3. Synthesis of the relevant literature

Chatbot Marketing Efforts	**Description**	**Effect**
Interaction (Cheng & Jiang 2022; Chung et al 2020)	Communication between customers and chatbot agents in cyberspace	Customer: parasocial benefits, saved time, easier purchasing decisions Brand: strengthened customer-brand relationships, ability to influence purchasing decisions
Entertainment (Cheng & Jiang 2022; Chung et al 2020)	Hedonic way of introducing useful and valid information to the customers	Customers: positive emotions such as fun, enjoyment, relaxation, escapism Brand: increased brand value perceptions, growth of brand awareness, stimulation of the customer interest, intentions to affiliate and buy the brand,
Customization (Cheng & Jiang 2022; Chung et al 2020)	Customized chatbot assistance	Customer: fulfilled individual preferences and needs Brand: stronger brand affinity, loyalty, ability to express individuality of the brand
Problem-solving (Chung et al 2020)	Way of handling customer requests, problems, complaints, returns, and exchanges	Customer: Immediate request solution, met quality expectations Brand: positive perception of the brand and service
Trendiness (Chung et al 2020)	Dissemination of the latest brand-and product-related information, current trends reviews	Customer: products offer that appropriately meet and convey their lifestyles, well-considered buying decisions, product expertise, inspiration Brand: stronger brand affinity, loyalty
Information (Cheng & Jiang 2022)	Information on products, services or the brand itself	Customer: relevant, context-based information, easier decision-making process Brand: ability to influence on the purchasing behavior and decisions
Accessibility (Cheng & Jiang 2022)	Instant way of assessing and responding to customer requests	Customer: direct and timely access to services and products Brand: increased customer satisfaction

Interaction is the first factor, referring to the communication between customers and brand chatbots, simulating the real-world human conversation with the salesperson. This two-way communication allows buyers to save time, get advice, gain parasocial benefits (e.g., feel valued, enjoy interactions, etc.), and ease purchasing procedures (Cheng & Jiang 2022, 253; Chung et al 2020, 588).

The second dimension of chatbot marketing is *entertainment*, which involves “a hedonic way of introducing useful and valid information” that stimulates the increase of customers’ value perceptions and desire to connect with the brand (Chung et al 2020, 588–589). Chatbots that provide entertainment value for customers who look for enjoyment, can generate a positive brand image, and improve brand awareness, engagement, and loyalty (Cheng & Jiang 2022, 253).

The third chatbot marketing parameter is *customization* which represents the extent to which AI-powered chatbot marketing activities can tailor and personalize customer assistance to meet their individual needs and preferences (Cheng & Jiang 2022, 253; Chung et al 2020, 589). These marketing efforts facilitate a stronger brand attachment and enhance loyalty (Chung et al 2020, 589).

The fourth chatbot marketing dimension has been identified as *problem-solving*, which implies addressing complaints, problems, returns, and exchanges, similar to the offline retail store (Chung et al 2020, 589). Furthermore, *trendiness* as a chatbot marketing effort, is understood in terms of the dissemination of the latest and most fashionable information about brands (Godey et al 2016, 5835), such as the latest trends that resonate with the brand and convey the customer's lifestyle (Chung et al 2020, 589).

Finally, the *information* is the basic parameter of the chatbot marketing efforts, which involves sharing relevant knowledge on the product or brand itself (Cheng & Jiang 2022, 253). Last but not least, *accessibility* refers to the way of responding to customer inquiries in a timely and instant manner at any time and from anywhere (Cheng & Jiang 2022, 253).

2.3 Chatbot communication quality

Chatbots are considered to play a crucial role in cultivating and improving customer-brand relationships (Chung et al. 2020, 589). As chatbots are designed to comply with the brand’s image, perceptions of the chatbots may considerably influence attitudes toward the brand (Li & Wang 2023, 2–3). Therefore, it is reasonable to investigate the effect of a virtual assistant’s communication quality on the customer’s brand perception and response. This study aligns chatbot communication quality with several dimensions from previous research.

According to one stream of studies, *accuracy, credibility, and competence* are the key properties in the context of chatbot-user interaction that evoke positive attitudes toward virtual agent service, motivate psychological connections and satisfaction, and make consumers willing to continuously purchase brand products. *Accuracy* refers to the precision of the marketing information that bots provide. Customers trust the accuracy of communication with service agents when it is timely, adequate, and complete. *Credibility* refers to the believability of chatbots. To believe that any computer-mediated communication is credible, customers must perceive those chatbot agents as trustworthy and able to listen to their concerns, analyze their situations, and provide them with the needed information. *Competence* implies the ability of the bots to complete a task efficiently. Customers positively appraise the competence of chatbot agents' communication when it is smoother, more efficient, and more productive than face-to-face interactions with traditional agents. (Cheng & Jiang 2022, 254; Chung et al 2020, 589; Ruan & Mezei 2022, 2–4.)

To measure the chatbot's technical success, some researchers also identify *response time, usability, reliability, availability,and adaptability*, which also resonate with the previous thoughts. Thus, response time refers to the amount of time before a message is responded to. Usability relates to the ease of use of the chatbot and its efficiency in communication. Also, chatbots need to be trustworthy and easily available anytime and anywhere, being able to meet changing developments. (Cordero et al. 2022, 3.)

The emerging research also underlines the importance of social cues in chatbot design for customer evaluation. Thus, anthropomorphic, or rather human-mimicking, design cues, such as human-like names, profile images, and language style (Li & Wang 2023, 3; Moriuchi 2021, 23; Tsai et al. 2021, 462), increase the perceived humanness of the e-service agents, positively influence satisfaction, brand emotional connection, and behavioral intentions to use chatbots (Araujo 2018, 185–186; Nguyen et al. 2022, 2–4). In particular, the informal verbal cues are highlighted as antecedents of the positive brand attitude, even though it should be taken into account, that the language style effect may be weakened for those who have no prior affiliation with the brand (Li & Eng 2023, 7; Tsai et al. 2021, 463).

Additionally, when approaching the chatbot's communication quality, it is also necessary to consider the motives and mediators that affect the perception of the communication's accuracy, credibility, and competence by the user. The studies grounded in the Self-Determination (SDT) theory evaluate the chatbot quality from the customer perspective, examining the effect of chatbot interaction on user satisfaction with their performance on the task and their motivation to engage with the chatbot in the future (Nguyen et al. 2022, 1–10). In the context of chatbot use and task

performance, the SDTidentifies perceived autonomy and cognitive effort as key mediators influencing the perception of chatbot quality. (Nguyen et al. 2022, 3.)

Perceived autonomy is defined as the level of control over the task or goal completion, while cognitive effort refers to the amount of attentional capacity allocated to obtain and process information to perform a task. Interestingly, when dealing with the NLP-based chatbot, the user feels less control because they cannot anticipate whether their input will be correctly understood by the bot, in contrast to menu-based assistants, where the user can translate their intents into system commands through menu selections. At the same time, NLP chatbots increase the cognitive load by making users provide commands, understand messages from chatbots, and reply to chatbots' questions until they receive the desired results. (Nguyen et al. 2022, 3.)

Another theory, called the Technology Acceptance Model (TAM), also identifies *perceived usefulness* (PU), *perceived ease of use* (PEU) (Tsai et al. 2021, 461), *perceived risk,* and *perceived trust* as the variables affecting behavioral intention to use chatbots in the context of online purchases and consequently the brand attitude (Murtarelli et al. 2023, 721–723; Silva et al. 2022, 287–288; Rese et al. 2020, 2–4).

This way, the user wants the chatbot to be effortless in the application and efficient when it comes to the shopping experience (Murtrelli et al. 2023, 721; Tsai et al. 2021, 461; Rese et al. 2020, 5–6). Trust refers to the individual's belief that the brand treats him or her fairly, excelling at the same time in human personnel's competency (Murtrelli et al. 2023, 722). When using chatbots, the user also considers financial, time-loss, social, and functional risks (Murtrelli et al. 2023, 723; Rese et al. 2020, 5), particularly when it comes to personal data privacy and financial operations.

2.4 Chatbots as customer-brand relationships enablers

Modern brands put a lot of effort into building long-lasting reciprocal relationships with their target audience (Cheng & Jiang 2022, 254; Morgan-Thomas et al. 2020, 714). Customer-brand relationships (CBR) are interdisciplinary (Cheng & Jiang 2022, 255) and can take several forms (Kumar 2020, 994). Fournier, who originated the concept, defined customer-brand relationships from a psycho-socio-cultural perspective (Cheng & Jiang 2022, 255). This approach views brands as significant partners, identifying commitment, partner quality, love and passion, intimacy, and self-connection as its major integral components (Cheng & Jiang 2022, 255; Esch et al. 2006, 100). Later research (Aaker et al. 2004, 9) conceptualized customer-brand relationships as a multidimensional construct comprising satisfaction, immediacy, and commitment. Other perceptive

theories (Esch et al. 2006, 100–101) expanded the concept beyond cognitive evaluation, which is associated with satisfaction, and included enduring interdependence, attachment, and trust.

In the context of communicative digital interactions between brands and their customers, Cheng & Jiang deduced several sub-dimensions of the CBR, grounded on earlier studies, including commitment, trust, control mutuality, and satisfaction (Cheng & Jiang 2022, 255). To specify, commitment refers to the level of attachment (Cheng & Jiang 2022, 255) or the enduring desire to continue the relations (Aaker et al. 2004, 7) with the brand (e.g., further purchasing intentions), while trust underlines the level of consumer confidence (Cheng & Jiang 2022, 256). Control mutuality is the ability to influence the brand (Cheng & Jiang 2022, 256), for example, by leaving feedback and having at the same time a sense of fulfillment, or satisfaction, towards the product or service (Brill et al. 2019, 1404).

Given the fact that customer-brand relationships have become more interactive in nature due to the emergence and proliferation of more technologically advanced communication tools, such as social media and digital interfaces (e.g., chatbots, live chats), more attention has been paid to customer-brand engagement (CBE) (Cheng & Jiang 2022, 255), as a positive outcome of the CBR. Compared to traditional concepts of brand love, purchase intentions, brand preference (Cheng & Jiang 2022, 255), brand experience, and brand trust, engagement comprehensively reflects the dynamic of customer-brand relationships (Fernandes & Moreira 2019, 275).

Early conceptualizations of CBE (Hollebeek et al. 2014, 152) validate three ‘positively valenced’ dimensions: cognitive processing (cognitive CBE), affection (emotional CBE), and activation (behavioral CBE). Regarding consumer-brand interactions, cognitive processing is defined as "a consumer’s level of brand-related thought processing and elaboration"; affection refers to "a consumer’s degree of positive brand-related effect"; and activation refers to "a consumer’s level of energy, effort, and time spent on a brand" (Hollebeek et al. 2014, 154). Dessert et al. (2016, 410) further deepened the understanding of CBE by including several sub-dimensions, namely enthusiasm and enjoyment (affective), attention and absorption (cognitive), and sharing, learning, and endorsing (behavioral).

In the context of fashion brands, the approach developed by Fernandes and Moreira (2019, 275–277), conceptualizing customer-brand relations according to their functional (e.g., price, quality, design, intrinsic characteristics, etc.) and/or symbolic (e.g., social desirability, self-expression, etc.) benefits, was found to be quite powerful. They discovered that the nature of consumer-brand relationships affects the levels of CBE (Fernandes & Moreira 2019, 277), which cognitive, affective, and behavioral dimensions were found to be stronger for an emotionally attached brand

relationship compared to a utilitarian or functional one (Fernandes & Moreira 2019, 274). As such, consumers who develop primarily an emotional-based brand relationship are expected to be highly involved and to develop a psychological bond with the brand, willing to invest time, effort, and affection in brand-related interactions beyond consumption (Fernandes & Moreira 2019, 277).

Along with the brand as a primary focus or object of customer engagement, the concept of engagement encompasses communication mediators, brand-related content, brand organizational entities, and various brand-related communities (Dessart et al. 2016, 341). Digital ecosystems, such as apps, social media sites, and interfaces, play an important role in engagement research since they generate new possibilities for consumer action and direct interaction with the brand (Kotler et al. 2021, 171; Morgan-Thomas et al. 2020, 714). Thus, the socio-technical perspective on customer engagement does not perceive technologies as passive engagement tools, mediators, or rather, elements of context (Morgan-Thomas et al. 2020, 716) about the brands, but rather brand amplifiers.

The borders between the physical and digital worlds are merging and almost becoming the continuation of one another, forming the so-called "Phygital world". (Batat 2022, 34; Kotler et al. 2021, 171–172). The need for augmented digital interfaces, such as chatbots and live chats, which provide the opportunity to engage with the brand, is especially fueled by Generation Z (born between 1997 and 2012) and Generation Y (Millennials born between 1981 and 1996), who perceive technologies as an extension of themselves (Kotler et al. 2021, 171–172) and prefer using them for completing various purchasing processes because of their prioritized convenience, conversational engagement, instant gratification, and connection with the brands (Murtarelli et al. 2022, 720).

3 Research methods

In the previous chapter, the author examined the theoretical framework, including the concepts relevant to the empirical part of the research. Namely, the researcher described the tech-driven augmented and conversational marketing approaches, discovered the context of the chatbot market, as well as outlined the prospects of this technology application in various spheres. Further, the chatbot as a conversational interface was explained with its typology, benefits, and limitations. Following that, the major components of the chatbot marketing efforts, mediated by chatbot communication quality, were identified. Finally, the author approached the concept of customer-brand relationships and their derivative – customer engagement.

This chapter presents the research methods used to conduct research, including detailed information on the research process; thus, it is possible to reproduce the study. First, this chapter elaborates on the research design. Second, the author covers the techniques and methods for obtaining the research data, followed by the data analysis. Risks, validity, and reliability are discussed in their subchapters at the end of this chapter.

3.1 Research design

According to the nature of the research inquiry and the expected results, the research could be defined as exploratory (McGivern 2013, 46–48). The researcher aims to explore a relatively new and understudied research area by seeking to identify how customer-brand engagement could be improved through the use of chatbot marketing efforts in the Finnish fashion industry. The goal of this study is to generate recommendations and provide the grounds for future research.

This research is an empirical, multi-phase study. In Figure 6 below, the research design has been explained, and the relationship between the data analysis methods and investigative questions has been presented.

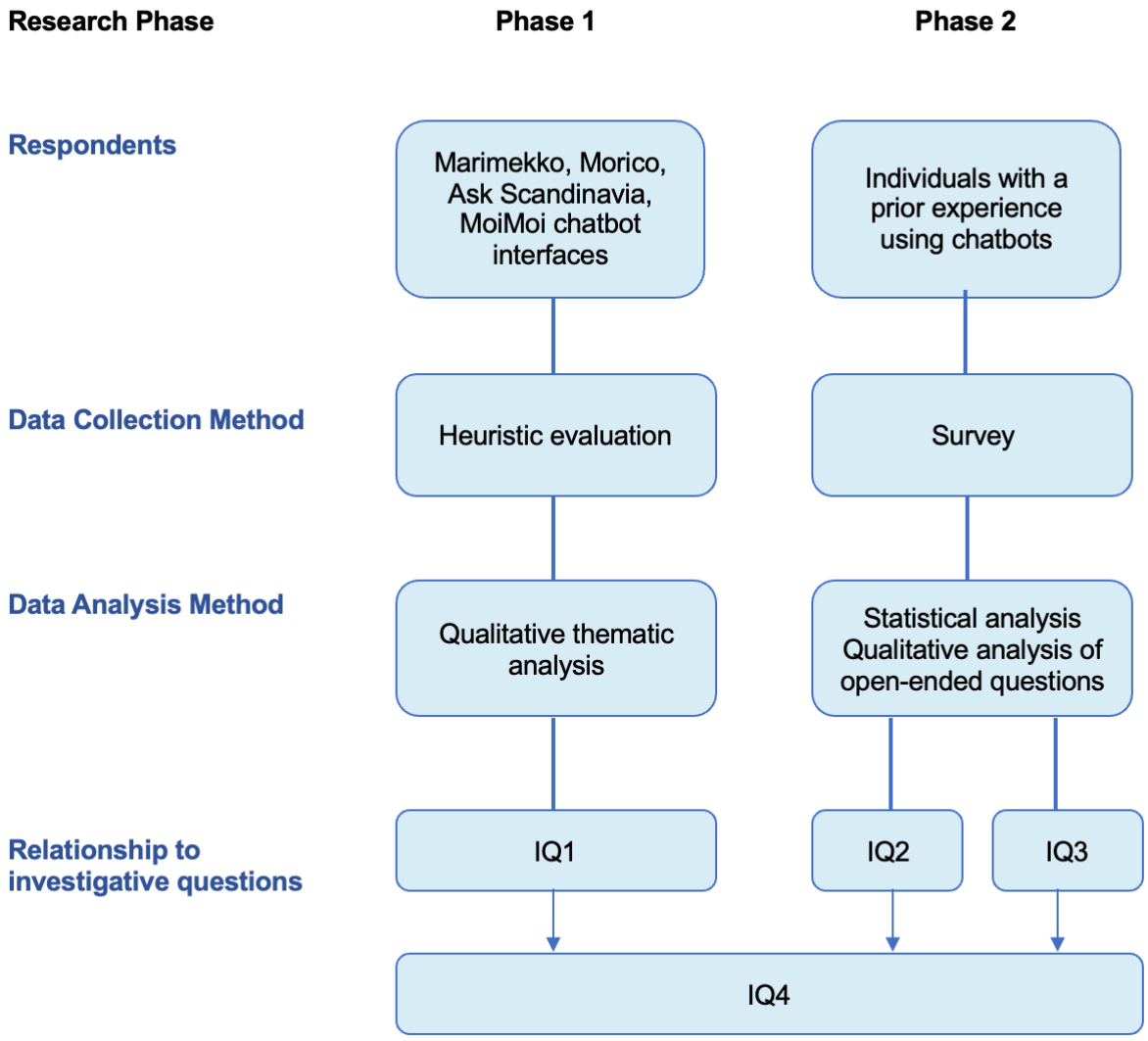

Figure 6. Visualization of the research design

The starting point of the thesis was the analysis of the existing literature and the heuristic analysis of the chatbot conversational interfaces of several local fashion brands integrating this feature on their websites. The key dimensions of the Chatbot Marketing Efforts (CMEs) such as interaction, information, accessibility, entertainment, and customization, were studied based on the existing literature and the practical implementation of fashion brands.

Subsequently, IQ2 (customer utilization of chatbots), IQ3 (impact of CMEs on CBR and CE), and IQ4 (potential usage of chatbots in the context of fashion) were evaluated using user surveys. These surveys were disseminated through various social media platforms, such as LinkedIn, Facebook, Twitter, and Reddit, survey portals, including Survey Circle and Survey Swap, as well as the Haaga-Helia email database repository.

Based on the survey results and heuristic analysis, recommendations were provided on how local fashion brands could leverage the chatbots to create an excellent customer experience.

3.2 Population and sampling

As the main focus of the research is to explore the effect of user experience on customer-brand relationships, the target population (McGivern 2013, 232) of the current research was defined as men and women aged over 18 who have been previously interacting with a chatbot. A suitable sample size of 40 to 100 respondents was estimated to obtain statistically reliable results. In line with what has been suggested by statistics scholars (McGivern 2013, 239–247; Creswell 2009, 155), the estimates were based on such parameters as margin of error, confidence level, and population size. To make the sample size more accurately reflect the population values (McGivern 2013, 245) and take less risk, the margin of error was set to be 10% while the confidence level was aimed at 95 % (equal to Z-score - 1.96), while for the population size, it was conservatively used at 100,000.

The formula (Survey Monkey) for calculating sample size based on a desired margin of error (E), confidence level (Z), and estimated population proportion (p) is:

$$n = (Z^2 * p * (1-p)) / E^2$$

Based on the given values for Z (1.96), p (0.5), and E (0.10), the minimum sample size needed to achieve a 10 % margin of error, a 95 % confidence level, and a population size of 100 000 is 96. According to Nielsen Norman Group (Moran & Budiu 2021, Nielsen Norman Group), a user experience consulting firm, it is recommended to use 15 % for the margin of error when exploring the user experience with various interfaces since it requires more qualifications and competence from the user. Therefore, the minimum sample size was estimated to be 43 participants. Therefore, the real size of the extracted sample (n = 97) appears to be suitable for the research.

For this survey, a convenience sampling or non-probability sampling technique (McGivern 2013, 234) was used to collect participants from the target population. This type of sampling was selected because it easily reaches those who are interested in this topic and readily shares their relevant experience. Thus, the sample components were selected based on their chatbot experience, accessibility, and willingness to participate. The respondents were initially screened out to ensure their capability to evaluate their previous experience with any of the mentioned brands by answering the question "Have you ever chatted with chatbots?". Those who answered "No" or "Can’t remember" were redirected to the section related to the potential use of chatbots

when dealing with fashion brands to learn about their expectations, followed by the demographic sections.

Respondents were not restricted geographically, but the location question "Where do you live?" with the options "In Finland", "Other European country", and "Other country (outside of Europe)" was included in the demographic survey section to assess sample diversity and get sufficient results.

When exploring the adaptation of chatbots in marketing practices, several Finnish fashion brands that implemented this interface on their websites were included in the analysis. Namely, they were Namely, they were Marimekko, Morico, Ask Scandinavia, and MoiMoi.

3.3 Data collection

First, to study how Finnish fashion brands (Marimekko, MoiMoi, Ask Scandinavia, Morico) utilize chatbots in their marketing strategies, their websites were scrutinized. They were assessed from the point of view of how they adapt such parameters as *interaction, customization, entertainment, accessibility, and information* adapted from previous research (Cheng & Jiang 2022).

Then the heuristic evaluation method was applied. Heuristic evaluation is an "informal usability inspection method" that allows the analysis of the interface based on certain usability rules (Martin & Hanington 2012, 98). It does not require special technical skills and, therefore, seems to be appropriate in the context of the research when assessing the overall impression of the chatbot service. The heuristic guidelines applied in the analysis were adapted from Nielsen's 10 general principles for interaction design and Schevat's bot design guidelines (Höhn & Bongard-Blanchy 2021, 4-5; Martin & Hanington 2012, 99; Norman Nielsen Group 2020; Schevat 2017, Chapter 8), which are listed in Table 4 below:

Table 4. Principles of heuristic evaluation

Heuristic Principle	Description
1. Visibility of system status	(a) Chatbot should provide information about its status throughout the entire interaction with the user. (b) Chatbot should give immediate feedback to the user to confirm whether their last action was successful or not. (c) Chatbot should suggest the user's next action and guide them towards it
2. Match between system and the real world	(a) Chatbot should use the language familiar to the target audience (b) It should use visual components (emojis, GIFs, icons) which are associated with the real-world objects (c) It should use understandable metaphors

Heuristic Principle	Description
3. User control and freedom	(a) Chatbot should allow users to undo/redo of actions (b) Chatbot should have a permanent menu (c) Chatbot should provide navigation options (d) Chatbot should recognize any user initiations to fix mistakes
4. Consistency and standards	(a) Chatbot should adopt the user's perspective when using domain specific terms (b) Chatbot should have a distinct personality, consistency in language and style
5. Error prevention	(a) Chatbot should prevent unconscious user mistakes by meaningful constraints (b) Chatbot should detect spelling errors to prevent typo mistakes (c) Chatbot should request confirmation before actions with significant implications (d) It should explain consequences of the user actions
6. Recognition rather than recall	(a) Chatbot should provide descriptive visual elements and explicit instructions to make options understandable for the user (b) Chatbot should show summary of the collected information before transactions (c) Chatbot should offer a permanent menu and help options
7. Flexibility and efficiency of use	(a) Chatbot should be able to recognize synonyms (b) Chatbot should be able to handle various forms of input (c) Chatbot should provide multiple ways to achieve the same goal
8. Aesthetic and minimalist design	(a) Chatbot should have concise dialogues with only relevant information (b) Chatbot should use visual elements that constituent with brand's personality, rather than just for decoration
9. Help users recognise, diagnose, and recover from errors	(a) Chatbot should clearly indicate the error occurred (b) It should use simple language to explain the error (c) Chatbot should explain the actions needed to fix an error (d) Chatbot should provide quick ways of fixing the error
10. Help and documentation	(a) Chatbot should provide a clear description of its capabilities and limitations (b) It offers keyword search (c) Chatbot tailors its help to the specific user task (d) Chatbot provides step-by-step instructions to complete a user task
11. Context understanding	(a) Chatbot is able to understands the context within 1-3 turns of conversation (b) Chatbot can understand the context of a multi-turns or exchanges between the user and the bot
12. Interaction management capabilities	(a) Chatbot recognizes conversation openings and closings (e.g., 'hello') (b) It understands sequence closings (e.g., 'ok' and 'thank you') (c) Chatbot understands when a user wants repair or discard previous initiations and replies appropriately (d) Chatbot proactively initiates repair to handle potential user error

Initially, it was also planned to get interviews with the fashion brands' representatives as field experts from Marimekko, Hálo, Vimma, Arela Studio, Morico, and Finlayson to hear from their experience on how they see the potential of conversational technology in their marketing practices. Additionally, GIOSG, the Finnish software company and the largest provider of interactive solutions for local brands in different spheres, was contacted. Nevertheless, none of the above-mentioned companies, contacted by the researcher by email, confirmed their participation in the interview. The interview invitation cover letter can be found in Appendix 3.

Afterward, the data on the users' chatbot experience, including the extent of the chatbot utilization, chatbot communication quality perceptions, and the attitude towards brands

have been collected via an online self-completion survey created using Webropol. Surveys are efficient quantitative methods that can cover a relatively large sample size and yield highly reliable results (McGivern 2013, 52), as required by the research. It allows, to some extent, the generalization of the sample results and their extrapolation to a larger population (Creswell 2009, 145).

The structured questionnaire was designed based on the literature review and in line with the theoretical concepts shown in the research model in Figure 7. The full-text questionnaire can be found in Appendix 1. The aim was to investigate the impact of chatbot marketing efforts, mediated by chatbot communication quality, on customer-brand relationships and to explore the potential of chatbots in the fashion e-commerce context.

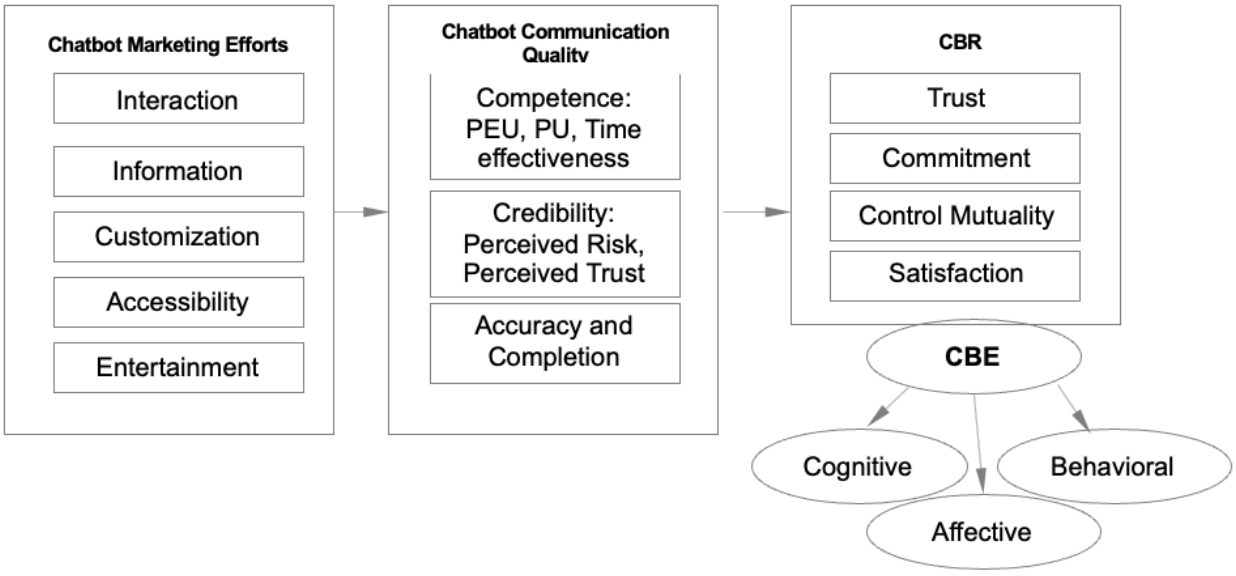

Figure 7. Survey Model

There were three sections in the questionnaire. At the outset of the survey, the concept of chatbots was explained. Additionally, two visual examples of chatbots on the website and Facebook (with hidden brand names to eliminate any bias) were provided to help participants understand which interfaces could be considered when sharing their personal insights.

The first section included questions to understand the extent of the previous user chatbot experience. Specifically, respondents were asked whether they had interacted with a chatbot before, with the dichotomous options "yes", "no", and "can't remember", in order to exclude those who may not be able to provide relevant insights on their perceptions of the chatbot's communication quality and brand attitudes. Furthermore, they were proposed to select the spheres of their previous chatbot exchanges.

When approaching the users on their experiences and perceptions, they were asked to name one or several brands which chatbot they had previously dealt with. To avoid the situation of not getting enough qualifying replies, it was decided not to limit the previous chatbot user experience to fashion brands since, currently, only a limited number of fashion brands, both globally and locally, have adopted chatbots in social media channels and websites, which is also diverse depending on the regional market. Thus, some fashion brands narrow down chatbot adoption to a specific region where this technology is more in demand among customers (e.g., the USA, China, or Japan).

Based on the chatbot experiences of the brands mentioned by the respondents, they were asked to provide their opinions. The constructs, as depicted in Figure 5 and adapted from the prior studies, were measured with multiple statements on a five-point Likert scale, ranging from one ("strongly disagree") to five ("strongly agree"). In total, 21 scale items were used to measure the major thematic topics of chatbot marketing efforts, perceived chatbot communication quality, customer-brand relationships, and customer-brand engagement. Table 5 outlines the scales and the items used in this paper.

Table 5. Scale Measurement

Thematic Topic	Variable	Scale Reference	Adapted scale
Chatbot marketing efforts	Interaction	Cheng & Jiang 2022, Chung et al. 2020	The chatbot has the knowledge to answer my questions
	Information	Cheng & Jiang 2022	The chatbot service agent provides recommendations on the company's products/services
	Accessibility	Cheng & Jiang 2022	The chatbot can offer immediate answers anytime and anywhere
	Entertainment	Cheng & Jiang 2022, Chung et al. 2020	I enjoy choosing products more if they are recommended by the chatbot than if I choose them myself

Thematic Topic	Variable	Scale Reference	Adapted scale
	Customization	Cheng & Jiang 2022	I feel that using this chatbot meets my personal needs
Chatbot Communication Quality	Credibility		
	Perceived Trust	Mutarelli et al. 2023	I can rely on chatbots' ability to outperform human beings in the role of human customer service
	Perceived Risk	Murtarelli et al. 2023	I am scared that chatbots could steal my personal data and violate my privacy
	Competence		
	Perceived ease of use	Murtarelli et al. 2023	It is easy to find what I want by using chatbots
	Perceived ease of use	Murtarelli et al. 2023	Chatbots are easy to use
	Perceived Usefulness	Cheng & Jiang 2022, Chung et al. 2020	Using the chatbot is more efficient than other forms of communication
	Timely response	Cheng & Jiang 2022, Chung et al. 2020	Chatbots save a tremendous amount of time
	Accuracy		
	Communication	Cheng & Jiang 2022, Chung et al. 2020	Communication with a chatbot service agent is accurate and complete
CBR	Control Mutuality	Cheng & Jiang 2022	I believe the brand really listens to what I have to say (e.g. feedback)
	Satisfaction	Cheng & Jiang 2022	I believe I enjoy dealing with this brand
	Trust	Cheng & Jiang 2022	I believe I feel very confident about the brand
	Commitment	Cheng & Jiang 2022	I believe I can see that the brand wants to maintain a relationship with me
CBE	Affective CBE	Dessart et al. 2016	I feel enthusiastic about the brand
		Fernandes, T. & Moreira 2019, Hollebeek et al. 2014	Brand inspires me
	Behavioral CBE	Dessart et al. 2016	I say positive things about brand to other people
		Fernandes, T. & Moreira 2019, Hollebeek et al. 2014	I like continue using a brand
	Cognitive CBE	Dessart et al. 2016	Time flies when I interact with the brand

The second section covered the questions on the readiness to utilize chatbots when dealing with a fashion brand. Specifically, the respondents were requested to select the chatbot conversational functionalities that the user would prefer to have when buying or selecting clothes. Finally, the last

section covered questions to understand the demographics of the respondents, including age, gender, geographic location, education level, and employment status.

The questionnaire was built with Webropol, a survey and reporting tool, and was available for replies starting from April 14, 2023, until May 2, 2023. Data collection was conducted through various platforms such as LinkedIn, Facebook, Reddit, Twitter, and specialized portals Survey Circle and Survey Swap, publishing questionnaires worldwide. The social media publications, as demonstrated in Appendix 6, were focused on soliciting responses from individuals with previous chatbot experience to eliminate receiving irrelevant insights. To mitigate the risk of not getting enough qualifying participants, it was also decided to distribute the questionnaire to the Haaga-Helia IT students enrolled in the BITE program, who were considered more tech-savvy than the average user. The procedure included the research permit application, which included a questionnaire cover letter (see Appendix 4), that was sent to the Haaga-Helia study services. Though this way of survey distribution did not yield the desired number of responses, resulting in only three replies, it was nevertheless an attempt to reach a wider sample. Regarding the most efficient method of questionnaire delivery, LinkedIn proved to be the best one, presumably due to its specific nature of connecting like-minded business and service-oriented professionals from various industries. More detailed information on the questionnaire data collection timeline,publication platforms, and number of responses per day is presented in Appendices 2 and 5.

3.4 Data analysis methods

To evaluate the applicability of the chatbot marketing parameters (information, interaction, customization, entertainment, and accessibility) to the analyzed fashion brands' chatbots (Marimekko, Morico, Ask Scandinavia, and MoiMoi), a thematic analysis was implemented for each dimension, varying from 'not available', 'partially available' and 'available'. To evaluate the overall usability of the fashion brand's chatbot, the chatbot of Marimekko was analyzed since it was the most developed and had more features to analyze compared to others. Each heuristic (Table 3 in Chapter 3.3) was scored from 0 ('non-applicable'), 0.5 ('partially applicable'), and 1 ('fully applicable'). As such, each sub-heuristic was scored based on the above-mentioned scale and summarized. Then, the sum was divided by the number of applicable items included in specific heuristics. Finally, the received score for each heuristic was summed.

When analyzing the results of the questionnaire, IBM SPSS 29 statistical software and Microsoft Excel were used. The background questions, questions related to the previous chatbot user experience, as well as potential chatbot applications in the context of fashion brands, were

analyzed by frequency tables. Initially, the researcher set a rule in Webropol, screening those who have no prior chatbot interaction and leading to the section on the potential chatbot usage in terms of fashion, but, for some reason, those who answered "No/Can’t remember" still left their responses for the following 2 questions (Q 2 and Q 3). Consequently, these results were filtered out during analysis in IBM SPSS by setting the "If condition" in the Data-Select Cases section to have a more unbiased perception for Q 2 and Q 3 ("In which spheres have you used chatbots?", "How often do you use chatbots?").

When analyzing the Likert scale variables, the means of the replies distributed based on the geographical location were identified to investigate any dependencies. Along with that, the non-parametric test was utilized to explore any statistically significant differences among the groups from different areas of residence. In addition, Likert scale questions were used to examine the correlations between chatbot communication quality (Q 6), chatbot marketing efforts (Q 5), and the attitude towards the brand as expressed in customer brand relationships (Q 7) and customer-brand engagement (Q 8). The correlations between Q 5 and Q 7, Q 5 and Q 8, as well as Q 6 and Q 7, Q 6 and Q 8, were calculated with the Spearman correlation coefficient, with a minimum threshold of 0.3 considered statistically significant.

3.5 Risks and risk management

During the planning phase, the researcher evaluated several risks that may affect the realization and quality of the work. One of them was obtaining access to industry experts, like GIOSG and local fashion brands. There were several attempts to approach the companies for further interviews on the topic, but there was a lack of interest from their side to participate. In that case, the researcher used the backup method of the heuristic analysis of the chatbot service to maintain the level and relevancy of the research.

Another anticipated risk was the lack of prior publications, specifically on the use of chatbot interfaces in fashion and their role in customer-brand engagement. Therefore, the work on the theoretical background took quite longer than initially planned, which also negatively affected the general thesis timeline.

Finally, the risk of not getting enough qualifying answers was mitigated by active survey promotion via diverse social media platforms and specialized research platforms without restrictions in terms of geographic location or age.

3.6 Reliability, validity and relevance

To ensure the reliability of the research, meaning providing consistent results that could be repeated by other researchers under the same conditions (McGivern 2013, 270, 275), the survey was designed with this consideration in mind. The questions were formulated in a simple, straightforward, and concise form to minimize any errors caused by the participant's misinterpretation. All questions were set and marked with a star* as obligatory to minimize non-response. The researcher tried to sustain participants' engagement and willingness to participate by reducing the initial number of items related to each construct by almost 50 %.

To measure the reliability of the Likert-scale items covering the prior chatbot user experience, the researcher applied Cronbach's alpha testing, which allows to examine the inter-item consistency (Lin et al. 2020, 6). Cronbach's alpha coefficient varies from 0 to 1 and should exceed 0.7 to be adequate. The current research coefficient presented in Table 6 was 0.929, which is considered excellent (Lin et al. 2020, 6). Thus, the construct's consistency could be confirmed. Additionally, it had a 93.5 % of valid response rate, excluding those with no previous experience, which also justified the method of non-random or convenience sampling.

Table 6. Cronbach's alpha of the Likert-scale items

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.927	0.927	21

The reliability of the heuristic evaluation of the chatbot interfaces used by the local fashion brands also depended on many factors, including the qualification of the analyst, the quality of the interface, and the consistency of the analysis process (Farzandipour et al., 2022, 3). The researcher was technically considered to be relatively skilled in this regard, as she had previous training in this field, but ideally, this type of data analysis should be verified by several experts (Farzandipour et al., 2022, 3) to avoid any subjective factors. Also, the researcher was able to guarantee the consistency of the evaluation process, while the quality of the interface was a variable beyond her control.

Despite the relatively high reliability of the quantitative method applied to exploring solutions to investigative questions 2 and 3, its validity could be compromised. Validity here refers to the extent to which the research delivers accurate and unbiased evidence (McGivern 2013, 61). On the one hand, when evaluating the internal validity (McGivern 2013, 61), the researcher ensured that the research design did not contain any confounding variables and eliminated alternative

interpretations. At the same time, the use of closed and standardized questions may limit the contextual insights from the respondents that could be formulated in their own words (McGivern 2013, 52).

The external dimension of validity, or rather, the research's ability to be extrapolated to a wider population, is more complex. In terms of geography, it could be slightly biased since the majority of respondents were located outside Finland, in other European countries. Even though the phenomenon of chatbots and their use in marketing is global, it would be valuable to have more local participants, especially given the fact that the research particularly focuses on the Finnish market. Another point to consider is the age skew towards the Z-generation, which constituted the largest portion of the respondents, meaning the results could be generalized to a limited degree.

The validity of the heuristic evaluation was supported by certain scoring guidelines. At the same time, the interpretation of the data heavily relied on the researcher’s subjective judgment, which to some extent negatively affected the external validity aspect.

Regarding the relevance of both methods applied in the research, they allow to generate new knowledge on the influence, if any, of chatbot marketing efforts on customer-brand attitudes and customer engagement, which is somewhat scarce. Furthermore, the results may inform some practices to leverage the chatbot capabilities, which were overlooked by the local fashion industry.

4 Results

In the previous chapter, the research methods were expounded in detail. To specify, the research design was elaborated, followed by the rationale for the sampling strategy. Then the data collection tools and phases were explained. Finally, a data analysis approach, risks, as well as considerations related to the research reliability, validity, and relevance were outlined.

The following chapter first approached the heuristic evaluation of the Finnish fashion chatbot interfaces. Then, the background variables of the survey are explained, followed by the evaluation of dependencies identified in the data.

4.1 Evaluation of Finnish brands' chatbots marketing efforts and heuristics

To understand the current quality of the chatbot user experience provided by the Finnish fashion brands and build more effective recommendations of possible ways of service improvement, it was decided to analyze the chatbot's marketing efforts in the forms of interaction, entertainment, information, accessibility, and customization, adapted from Cheng & Jiang 2022. Additionally, to get a more objective picture of the chatbot's usability, a heuristic evaluation was conducted.

During the preliminary research, it turned out that only a few brands incorporated some form of automated conversation interface. The initial investigation included the Finnish brands' search and their website analysis. All the brands available on the Ivalo platform (Ivalo.fi), which is the local marketplace for sustainable brands, were checked. Additionally, the Finnish brands mentioned in the publication of Tiina Nyman (Medium 2020) were also scrutinized.

Several Finnish brands, such as Marimekko, Morico (Mori Collective *Oy*), ASK Scandinavia (*Ask* The *Scandinavian* Bag Company *Oy)*, and MoiMoi (*Moimoi* Accessories *Oy)*, which to some extent incorporated some form of automated conversation interface on their website, were analyzed. The brands with live chat or email helpdesk options, like, for instance, Nomen Nescio, a minimalist aesthetics fashion brand, or jewelry brand Aida, were not taken into consideration. Table 7 below briefly summarizes the chatbot marketing parameters for each of the mentioned fashion brands.

Marimekko (Marimekko.fi), the largest home furnishings, textiles, and fashion company, is one of the brands that has more advanced e-service options. Its chatbot (see Figure 8) has a menu- or button-based chatbot available solemnly in the Finnish language that allows the user to select predefined topics. It extensively provides information on various topics, including the products,

return policy, orders, membership, and limited collections. Additionally, it provides the option to be redirected to the human live chat service available on working days during limited hours.

From the interaction perspective, this parameter is insufficiently implemented since it does have a limited amount of knowledge and is not able to interpret and answer open-ended inquiries. The service is not customized, as it offers only generic options, like FAQs, and does not provide personalized information. Even though the chatbot is easily accessible 24/7, it does not provide any entertaining interactions.

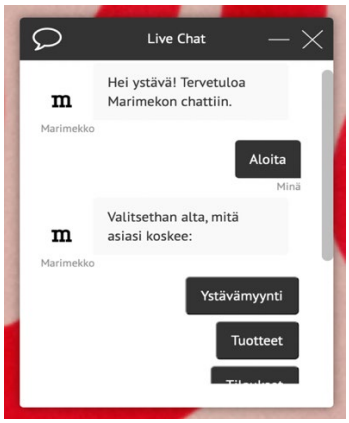

Figure 8. Illustration of the Marimekko menu-based chatbot

The following brands, Morico, Ask Scandinavia, and MoiMoi (see Figure 9), adopted email integrations along with the partially automated e-service that allows tracking orders based on the order number and email address, which makes all the parameters of the chatbot marketing efforts, except entertainment, partially applicable to these brands' chatbots since they could be called to some extent interactive, informative, and accessible and provide some personal info (order details).

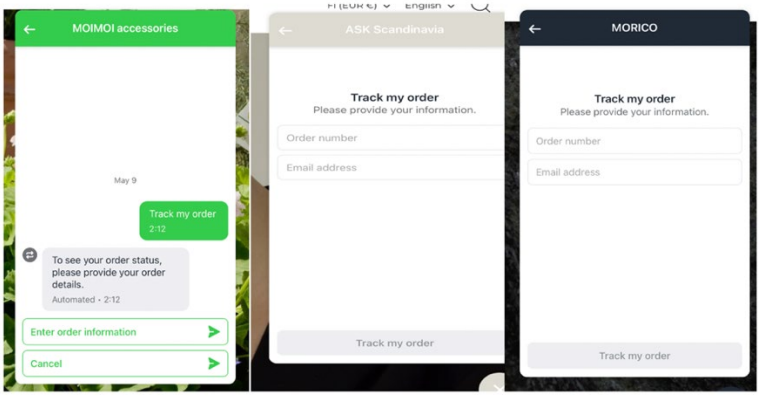

Figure 9. Illustration of the MoiMoi, Ask Scandinavia and Morico chatbots

Table 7. Summary of the Finnish brands chatbots marketing efforts parameters

Brands	**Brand description**	**Chatbot description**	**Information**	**Interaction**	**Customization**	**Accessibility**	**Entertainment**
Marimekko	Home furnishings, textiles, and fashion company	Menu based chatbot	Available	Partially available	Not available	Available	Not available
Morico	Street ware sustainable fashion brand	Automated order delivery tracking	Available	Partially available	Partially available	Partially available	Not available
Ask Scandinavia	Bag company	Automated order delivery tracking	Available	Partially available	Partially available	Partially available	Not available
Moimoi	Leather bag brand	Automated order delivery tracking	Partially available	Partially available	Partially available	Partially available	Not available

To identify potential usability issues that could help develop further recommendations on improvements, there was a heuristic evaluation, which detailed description was presented in Methods subchapter 3.3. As it was previously mentioned, the scoring was based on several heuristic principles (adapted from Höhn & Bongard-Blanchy 2021; Martin & Hanington 2012; Norman Nielsen Group 2020; Schevat 2017), including (1) visibility of system status, (2) match between system and the real world, (3) user control and freedom, (4) consistency and standards, (5) error prevention, (6) recognition rather than recall, (7) flexibility and efficiency of use, (8) aesthetic and minimalist design, (9) help users recognize, diagnose, and recover from errors, (10) help and documentation, (11) context understanding, and (12) interaction management capabilities. The maximum score for each heuristic was set at 1, while for partial fulfillment, it was 0.5. Table 8 presents the scoring for each indicator.

The heuristic analysis was taken only for Marimekko since it has the most developed e-service compared to other considered brands, in which chatbots have limited functionalities.

Table 8. Heuristics scores for the Marimekko chatbots

Chatbot	**Score**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
Max. score	12	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Marimekko	**6.5**	1	0.5	0.5	1	0.5	0.5	0.5	1	0	0.5	0	0.5

The evaluated Marimekko menu-based chatbot had good visibility of the system status (1). The chat icon appeared almost immediately on the right side of the website. The introductory message "Hi friend! Welcome to the Marimekko chat!" Additionally, the bot used moving dots imitating the process of typing the letter, thus giving a hint of the chatbot's presence.

The Marimekko bot was extremely understandable in terms of language and metaphors but lacked any visual components of the message (e.g., GIFs, emojis, icons) (2). In terms of user control and freedom, the chatbot provided a permanent menu, but it was missing the possibility to undo the user action and could not recognize any attempts to fix the input mistakes (3). Moreover, the bot stayed consistent in terms of language and personality (4). Regarding error prevention, the chatbot partially reduced the risk of error by setting limits to the users' queries with its predefined menu options (5).

For the recognition rather than recall parameter, the chatbot had a clear button-based navigation menu (6) but did not provide any descriptive visual elements (e.g., when presenting information on the limited collection with Adidas). The flexibility and efficiency of the Marimekko chatbot were insufficient since it was unable to recognize any synonyms or handle any forms of freely formulated requests. Nevertheless, it still delivered a limited possibility to complete the user task by redirecting to the instructions and live chat personnel (7). The minimalistic design of the chatbot icon and the conversational window, as well as the typography, coincided with the nature and spirit of the Marimekko brand and was extremely concise in the communication and the menu options, making the interaction clearer and more straightforward (8). The heuristics of error recognition, diagnosis, and recovery were not implemented in this version of the chatbot (9).

For the following parameter help and documentation (10), the chatbot was also non-sufficient because it did not inform users of its functionality limitations, did not have any keyword search options, and could not tailor its help to the specific user needs. At the same time, it provided an alternative to communication via human live chat or redirecting to specific customer service.

The chatbot failed to understand any context (11). Finally, the interaction management capabilities (12) were also scored low due to the bot's limited ability to understand the natural language with its conversation opening phrases (e.g., "Hello") or sequence closing phrases (e.g., "Thank you"), but was able to discard previous initiations and provide the information accordingly.

Overall, it was discovered that all the brands that adopted e-service agents on their websites were missing the entertainment aspect of marketing communication. At the same time, some of them, even with constrained functionalities, were able to deliver some form of tailored information related to the customers' orders. The Marimekko bot had limited capabilities in interpreting customer queries but was able to provide concise options, making it easier for the user to navigate the most popular topics.

4.2 Backgound survey variables

To better understand the data gathered, it is worth looking at the descriptive and background statistics shown in Appendices 7–11. Within 16 days, the survey collected 97 replies, where most (77 %) of respondents were young (18–26 age group) females (n = 75) and had bachelor's (59%), master's or higher (39 %) degrees. The majority (65 %) of the participants live in another European country, outside Finland (n = 63), while 24 of them live outside Europe (24.7 %), and only a minor proportion live in Finland (10.3 %, n = 10). Initially, it was assumed that most of the involved respondents would be from Finland, contrary to the actual results, and the option of geographic location did not include the selection of particular countries. For further research, it would be more valuable to differentiate among the European countries to understand which of them may be more interested in this interface utilization.

In terms of the current employment status of the respondents, it is worth noting that the major part (58.8 %) of them were students (n = 57), while 33 % (n = 32) were employed and 5.1 % were self-employed (n = 5), comprising a total of 38 %. Considering that the study originally aimed to generalize the results to a larger population, this occupational skewness slightly hampers the external validity of the research.

Remarkably, the respondents were predominantly representatives of the Z-generation (18–26 years old), accounting for 62%, followed by millennials (27–34: 22 % and 35–42: 8 %), and generation X (43–50: 5 % and 50–58: 3 %). This trend correlates with recent research assumptions that millennials and Gen Z are the early adopters of chatbots and their active users due to their interest in interactive digital information products (Murtarelli et al. 2022).

4.1 Spheres of chatbot applications among users

Of particular importance is the fact (see Figure 10) that the absolute majority (94 %) of respondents (n = 91) had previously interacted with a chatbot, with only a minor proportion of those who did not have any experience (5.2 %, n = 5) or could not recall any (1 %, n = 1). These results may, to some extent, imply that the convenience sampling method applied in the research was effective in recruiting participants with relevant experience.

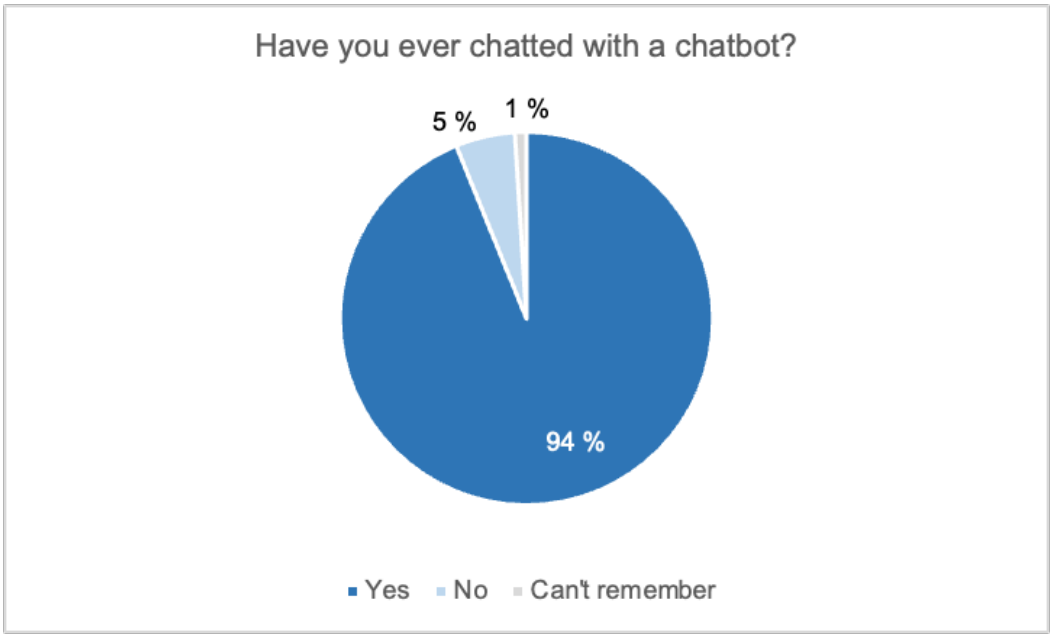

Figure 10. Previous chatbot interaction (n=97)

When analyzing the spheres of chatbot applications and the usage frequency, only the respondents with prior experience were considered, leading to a sample size of 91. Most of these participants (see Figure 11) use chatbots in the context of retail and e-commerce (76.9 %) and banking, financial, and insurance services (47.3 %), media, entertainment (22 %), as well as travel and tourism (22 %) along with healthcare (18.7 %), were also mentioned. 11 % of the respondents reported other spheres of chatbot application, including business, customer support, education, ChatGPT, manufacturing, fitness, research, and social media. It is worth noting, that the respondents were able to choose as many options as applied to them, and on average each participant selected 2 options of the previous chatbot application (the mean = 1.97).

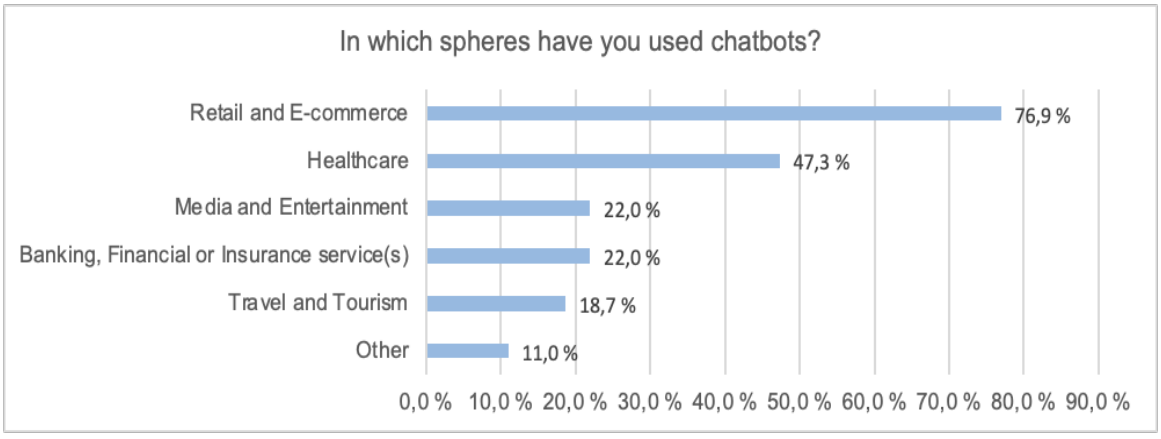

Figure 11. Spheres of chatbot application (n=91)

In terms of usage frequency (see Figure 12), the respondents do not use chatbots on a regular basis but rather sporadically. Most of the participants reported using chatbots monthly (38.5 %, n = 35) or once a semester (28.6 %, n = 26). A smaller percentage of respondents are using conversational interfaces (16.5 %, n = 15) once a year, weekly (13.2 %, n = 12), and only a minor proportion (3.3 %, n = 3) apply chatbots daily.

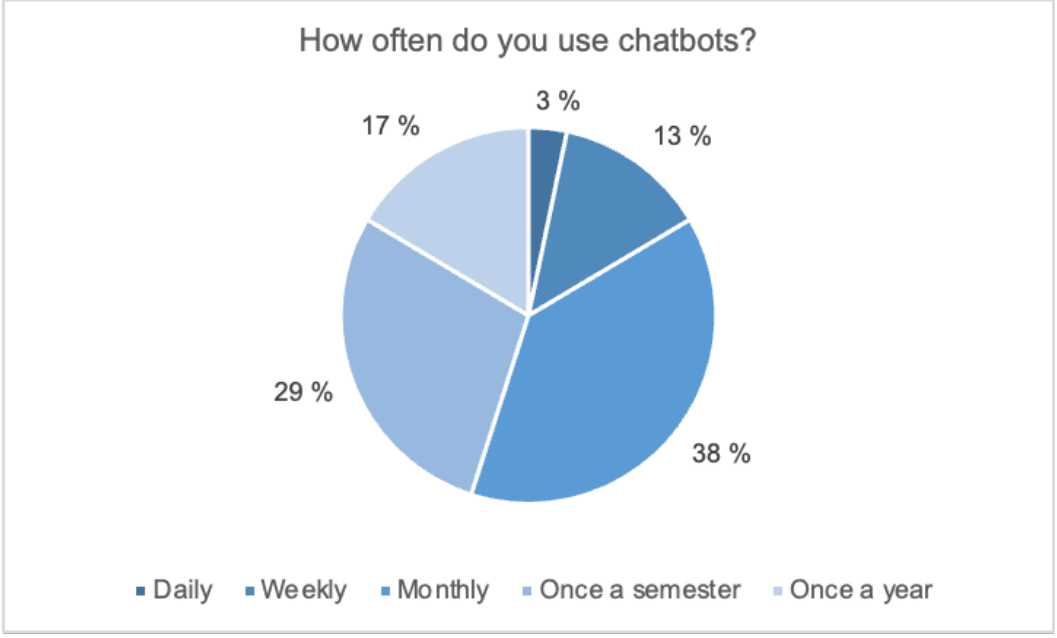

Figure 12. Frequency of using chatbots (n=91)

4.2 Chatbot marketing efforts from the users' perspective

When analyzing the brands, which chatbots the respondents had previous experience with, the researcher encountered several difficulties. In the section (Q 4 in Appendix 1) where users were requested to recall specific brands, some of them (n = 17) mentioned AI language models like ChatGPT, Grammarly, Quill Bot, and some others that were not related to the focus of the study. In addition, several respondents provided irrelevant information (n = 13), typing "No", "Don't remember any", "Don't really", or using generic terms like "Doctor", "Survey websites", "Disease state checker", and so on.

It became apparent that the definition and visual examples provided at the outset of the survey were not sufficient. Therefore, the survey should initially emphasize in the instructions that the focus is on commercial or enterprise chatbots, which are used by various types of businesses to facilitate communication with their customers, rather than those conversational interfaces designed for personal or entertainment purposes. Furthermore, the question itself should clarify what is expected from the respondents, reminding them of suitable examples. Finally, there could be the

option "Do not remember" leading to the next survey section. The last option was originally considered, but due to the respondents' overall reluctance to answer open-ended questions, which could lead to a lack of qualifying answers, this idea was declined.

Altogether, these irrelevant results accounted for 20 cases, and they were manually filtered out in IBM SPSS to ensure the validity of the study. Nevertheless, 71 cases of the provided examples of the brands proved to be quite insightful (as shown by the word cloud in Figure 13). Among the brands mentioned by the respondents, Amazon, an online retailer and web service provider, was most frequently cited (n = 5), followed by Nordea, a Nordic financial service group (n = 3), Vodafone, a British multinational telecommunications company (n = 2), Spotify, a digital music, podcast, and video service (n = 2), Sephora, a French multinational retailer of beauty products (n = 2), Nykaa, an Indian e-commerce company (n = 2), and Zara, Spanish fashion retailer (n =2). Remarkably, Nordea bank chatbot service was solemnly indicated by the respondents, residing in Finland, who also referred to their previous experience with OP bank, health services such as Maisa and Terveystalo, airline carriers Ryanair and Finnair, as well as retailers, including Swappie, Marimekko, and Verkkokauppa (see Figure 14).

Figure 13. Word map of the brands mentioned by respondents (n=71)

Figure 14. Word map of the Finnish residents (n=10)

Figures 15 and 16 illustrate the major insights on chatbot marketing perceptions. In terms of the users' attitudes towards the various dimensions of the chatbot's marketing efforts (adapted from Cheng & Jiang 2022, Chung et al. 2020), the participants were compared based on their geographic location (see Figure 15). The results revealed that the most positively perceived parameter is accessibility. Thus, as shown in Figure 16, more than half (57 %) of the respondents agreed with the statement *The chatbot can offer immediate answers anytime and anywhere*. This parameter was particularly important for the European respondents, with a mean score of 3.72 on a 5-point Likert scale (Figure 15). Participants demonstrated a neutral perception of the chatbot's ability to interact (total mean = 3.23) and deliver necessary information (total mean = 3.21). Thus, a little bit less than half of the respondents (see Figure 16) agreed with the statements *The chatbot service agent provides recommendations on the company's products/services* (45 %) and *The chatbot has the knowledge to answer my questions* (49 %).

Remarkably, respondents living outside Europe, unlike the Europeans and the Finns, tended to perceive the customization of the chatbot more positively (Figure 15), while on average the majority of the respondents tend to be neutral (38%), or, on the contrary, strongly disagree (23.9 %) with the statement *I feel that using this chatbot meets my personal needs*(Figure 16). The least appreciated dimension was the entertainment aspect of the chatbot marketing effort (total mean = 2.11, Figure 15). The majority (70 %) of the users disagree or strongly disagree with the statement that *I enjoy choosing products more if they are recommended by the chatbot than if I choose them myself* (Figure 16). Interestingly, the participants from Finland showed more variability in their viewpoints on each parameter compared to other groups, particularly in terms of entertainment (standard deviation = 1.549).

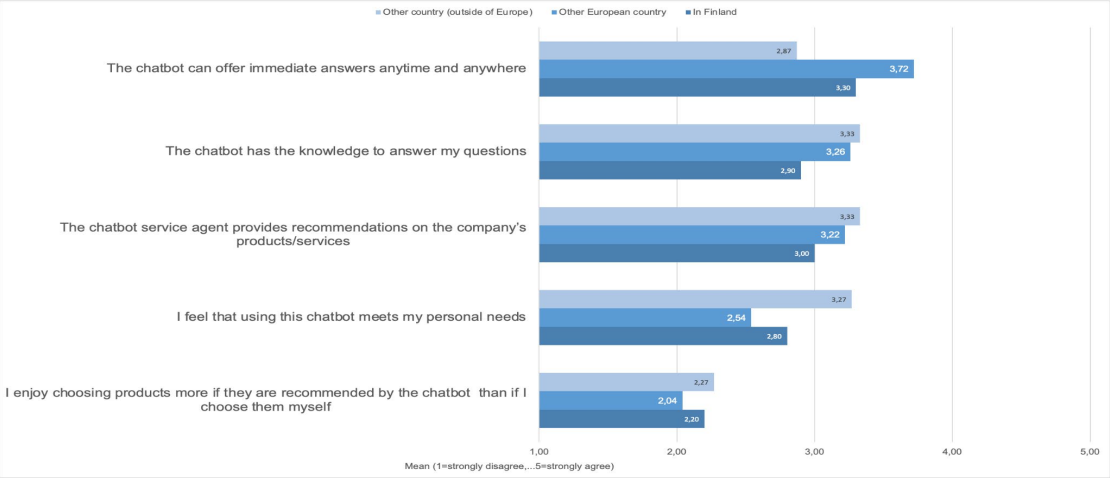

Figure 15. Perception of the chatbot marketing efforts by the respondents based on the geographic location (n=71)

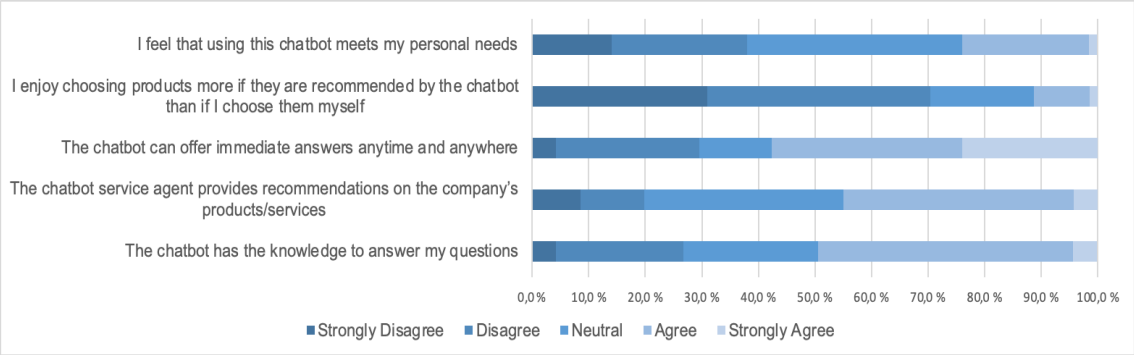

Figure 16. Respondents' level of agreement on the statements related to the chatbot marketing efforts (n=71)

To summarize, the chatbot's marketing efforts were generally positively seen. Particularly, the respondents found the interface accessibility, ability to interact, and provision of information to be satisfactory. Nevertheless, the customized assistance according to the individual user needs or entertainment value was perceived quite skeptically by the respondents.

4.3 Respondents' perception of the chatbot communication quality

The following figures 17 and 18 reflect on such chatbot parameters as credibility, competence, and communication accuracy (adapted from Cheng & Jiang 2022, Chung et al. 2020, Murtarelli et al. 2023). With regards to the chatbot communication characteristics, the respondents largely agreed that chatbots are easy to use, as indicated in Figure 17 (total mean = 3.68). To illustrate, the majority of the respondents (61.3 %) agreed with the statement that *Chatbots are easy to use* (Figure 18). Additionally, they tended to view positively the chatbot's ability to save their time (total mean = 3.13, Figure 17) by expressing strong (12.7 %) and moderate agreement (29.6 %) with that statement in Figure 18.

It is worth mentioning that the respondents living outside Europe were also more inclined to appreciate another aspect of the chatbot's competence, such as ease of use (mean = 3.33, Figure 17). Here, the majority of respondents either agreed (31 %) or were neutral (26.8 %) towards the statement *It is easy to find what I want by using chatbots* (Figure 18). On the contrary, the chatbots' usefulness was found insufficient by the respondents as an indicator of their general competence (total mean = 2.75, Figure 17). Hence, they leaned towards either strong (16.9 %), moderate (25.4 %) disagreement, or neutrality (31 %) when expressing their attitude to the statement *Using the chatbot is more efficient than other forms of communication* (Figure 18).

In terms of chatbots' communication credibility expressed in perceived trust and perceived risk, the respondents largely did not consider the communication to be risky (total mean = 2.62, Figure 17).

Specifically, referring to the affirmative statement *I am scared that chatbots could steal my personal data and violate my privacy,* the majority of the respondents either reacted neutrally (32.4 %) or negatively (43.5 %) as shown in Figure 18. On the other hand, the majority of the respondents (total mean = 2.13, Figure 17) did not completely trust chatbots' communication. To illustrate, more than half (64.8 %, Figure 18) disagree with the statement that *I can rely on chatbots' ability to outperform human beings in the role of human customer service. In the* same way, the accuracy of the communication was also found insufficient by the respondents (total mean = 2.62, Figure 17).

Interestingly, when comparing respondents by their geographic location, the Finnish participants' proclivity to express a wide range of opinions on Likert-scale statements stood out. Particularly when evaluating their previous experience, they were highly inconsistent on the issue of time efficiency (standard deviation = 1.792) and chatbot efficiency compared to other forms of communication (standard deviation = 1.578).

When considering the participants residing outside Europe, it was noted that they tended to more optimistically evaluate the ease of use and accuracy of communications, while being slightly more alarmed regarding data privacy concerns and more skeptical about the chatbot's ability to outperform other forms of communication, including the human one. (Figure 17.)

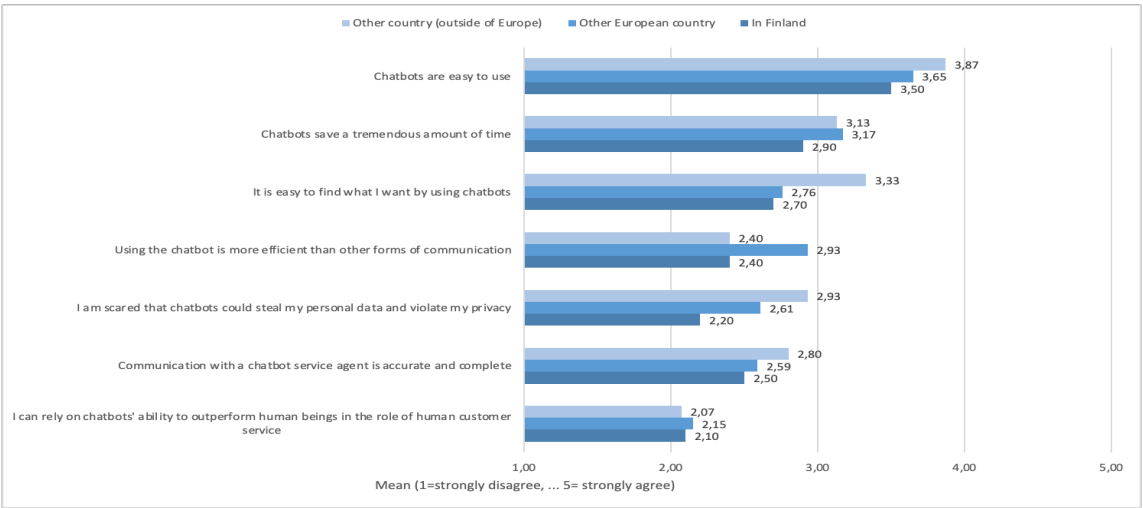

Figure 17. Perception of the chatbot communication quality by geographic location (n=71)

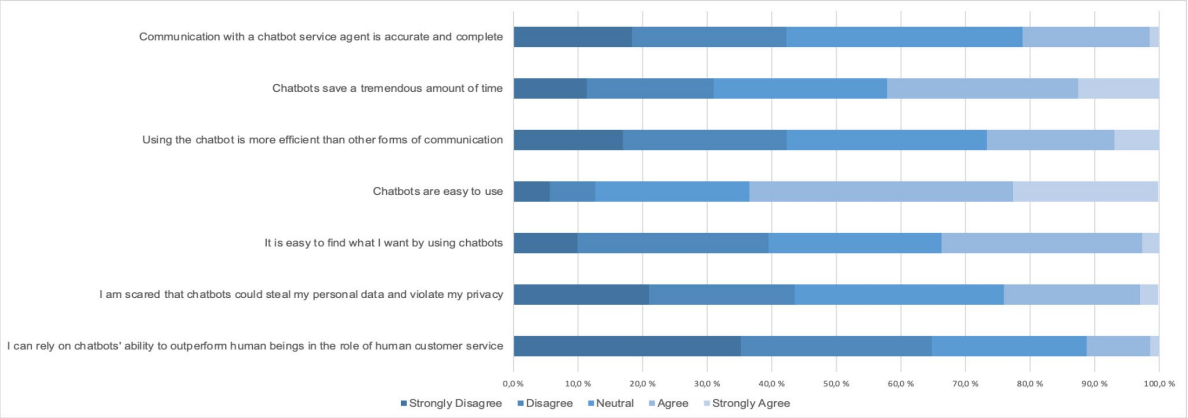

Figure 18. Respondents' level of agreement on the statements related to the main characteristics of the chatbot communication quality (n=71)

In essence, the survey participants agreed in large part on the chatbot's ease of use but were either neutral or prone to having a negative assessment of other parameters. Particularly, they denied perceiving the interactions with chatbots as a substitute for human ones. The accuracy was also found to be highly insufficient. At the same time, they did not consider the interface communication intrusive or dangerous to their personal data.

4.4 Respondents' relationships with the brands and their engagement

Figures 19 and 20 reflect the respondents' perception of the customer-brand dimensions such as control mutuality, satisfaction, trust, and commitment (adapted from Cheng & Jiang 2022). More than half of the respondents (52 %, Figure 20) agreed with the statement *I believe I feel very confident about the brand,* with a total mean of 3.37 (Figure 19). The respondents largely had a positive perception of the brand's commitment (total mean = 3.21), by expressing either strong (11.3 %), moderate (29.6 %) or neutral (39.4 %) agreement with the statement *I believe I can see that the brand wants to maintain a relationship with me* (Figure 20). The satisfaction indicated in the general agreement (43.6 %) with the statement *I believe I enjoy dealing with a brand* (Figure 20), had a total mean of 3.14 (Figure 19). Respondents tended to decline the idea of commitment to a major extent by disagreeing (40.9 %) or being neutral (33.8 %) regarding the statement *I believe the brand really listens to what I have to say (e.g., feedback)* as demonstrated in Figure 20. Remarkably, among the 4 statements, 3 of them had neutral answers with a percentage of 30 % or higher (Figure 20), which could indicate that the participants were more unsure or indifferent in their evaluation of relationships, while in the previous sections related to the chatbot experiences, they were more precise.

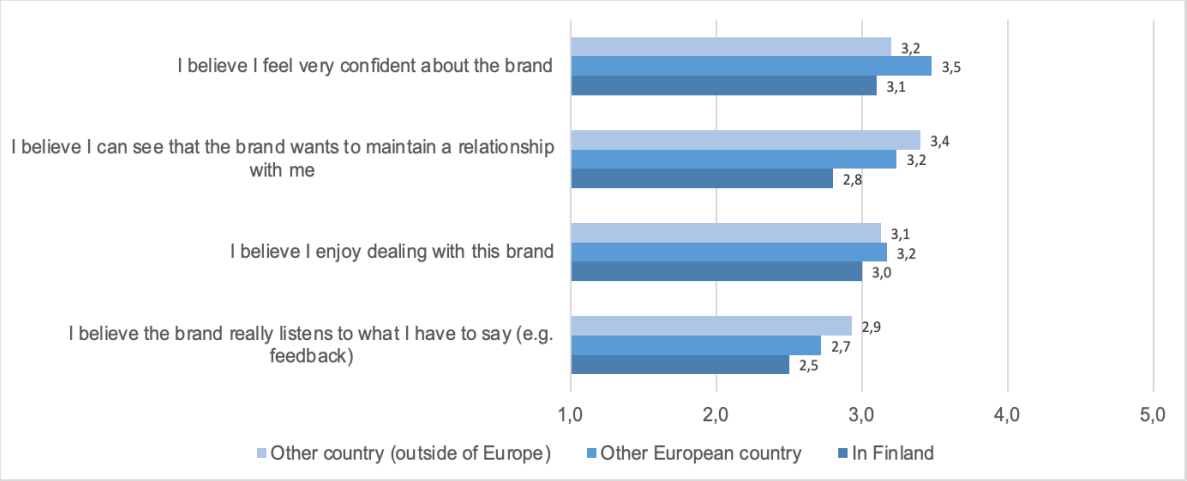

Figure 19. Perception of the customer-brand relationships by geographic location (n=71)

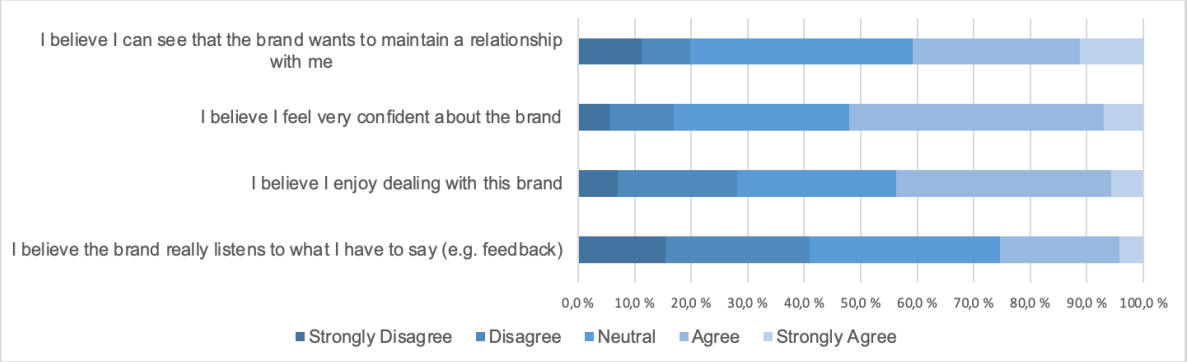

Figure 20. Respondents' level of agreement on the statements related to the customer-brand relationships (n=71)

The following Figures 21 and 22 reflect on the statistics related to the perception of customer-brand engagement, or rather its behavioral, affective, and cognitive aspects (adapted from Dessart et al. 2016, Fernandes & Moreira 2019, Hollebeek et al. 2014). The majority of the users agreed (62 %, Figure 21) on the fact that they feel *like continue using the brand* (total mean = 3.62, Figure 21). Along with this behavioral intention, they also confirmed their readiness to share their positive brand experience with other people (total mean = 3.13), by either expressing their agreement (38.3 %) or staying neutral (40.8 %) as depicted in Figure 21. The emotional or affective aspect of the engagement was less perceived by the respondents. They either were neutral (35.2 %) or positive (39 %) as shown in Figure 21 to the statement *I feel enthusiastic about the brand.* Additionally, equal proportions (18.3 %) expressed strong and moderate disagreement with the statement *Brand inspires me* (Figure 21). While cognitive absorption was the least acknowledged by the participants with a total mean of 2.4 and 40.8 % of disagreement or neutral (33.8 %) position towards the statement *Time flies when I interact with the brand.*

Notably, the neutrality percentage in this section was even higher than in the previous one, varying from 26.8 % to 40.85 %, which presumably may imply that the participants do not have strong, definite opinions or rather do not fully understand the topic. Another detail worth mentioning is that the respondents from outside Europe tended to be overall more positive towards the given statements compared to other groups, and this difference was particularly noticeable in terms of brand inspiration (significance coefficient = 0.047). In addition, they were much more unanimous in their opinions, with the average standard deviation around 0.773.

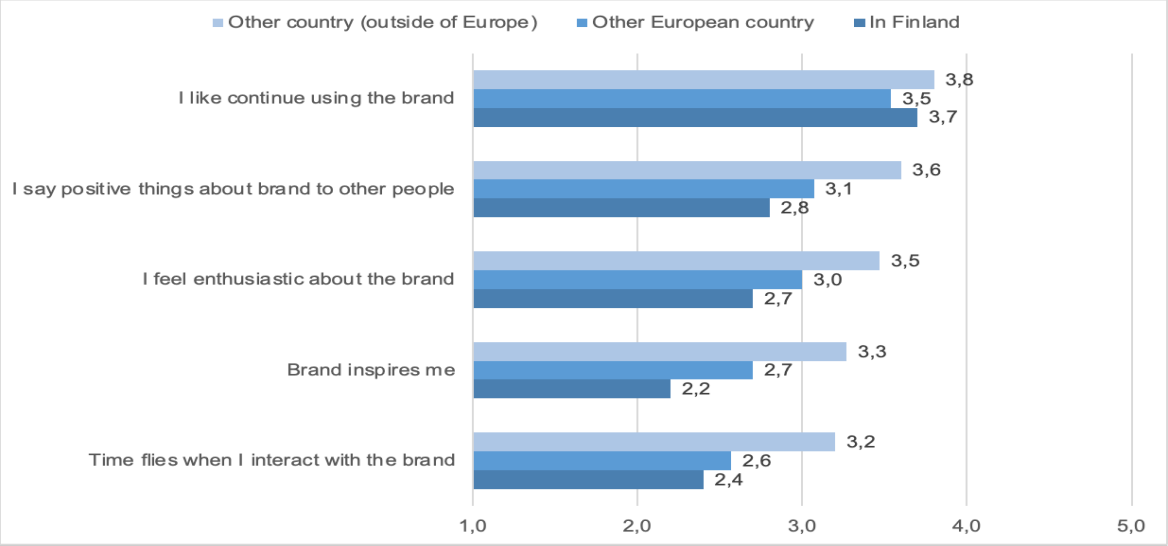

Figure 21. Perception of the customer-brand engagement by geographic location (n=71)

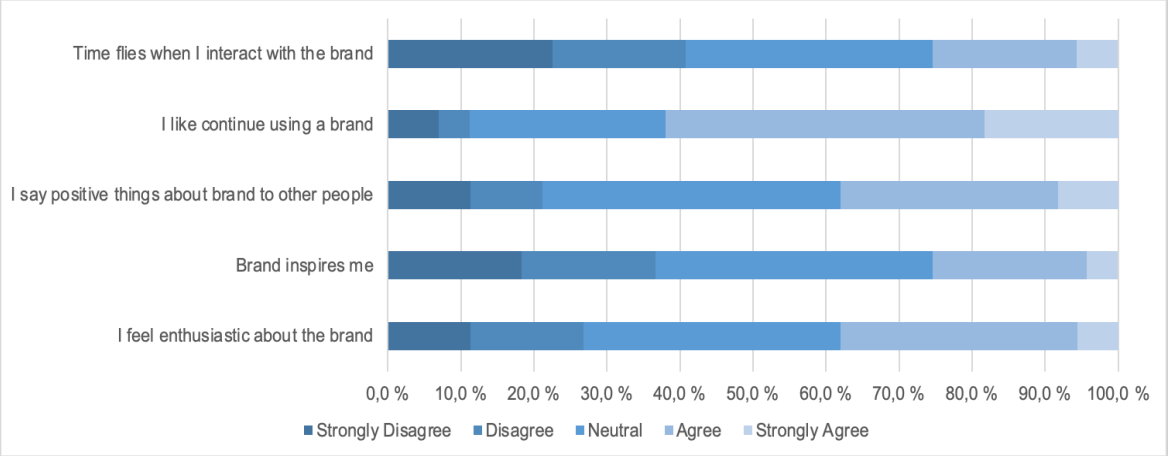

Figure 22. Respondents' level of agreement on the statements related to customer-brand engagement (n=71)

To summarize, when reflecting on their relationships with the brands, respondents largely expressed trust and demonstrated a willingness to continue using them. Moreover, when evaluating their involvement with the brand, they were also willing to share their positive brand-

related experiences with others. On the other hand, respondents to a major extent denied the idea of mutual control and the readiness of the brand to take users' needs and expectations into account when making decisions. The cognitive and affective aspects of customer-brand engagement were also less perceived. The trend was consistent among the groups, and there were not many discrepancies, despite the factor of emotional attachment expressed in the inspiration of the brands. It is worth noting that the percentage of neutral attitudes in the last 2 survey sections, related to the brand experience in contrast to the chatbot experience, was rather high, which may indicate either the lack of strong opinions on the topic or rather the missing engagement with the statements themselves, which may require the revision of the survey design in order to improve the quality of responses in future studies.

4.5 Correlations between the chatbot marketing efforts, customer brand relationships, and customer engagement

The following subchapter aims to consequently explore any effect of chatbot marketing efforts on customer-brand relationships as well as customer-brand engagement. Table 9 presents the correlations between the Likert-scale questions related to the chatbot marketing efforts and the customer-brand relationships. The Spearman correlation coefficient that exceeds 0.3 is taken as a benchmark to identify any significant correlations.

One of the most significant relationships here was discovered in terms of chatbot customization parameters and all the dimensions of customer-brand relationships observed in the previous subchapter. Namely, the more the respondents agreed with the statement *I feel that using this chatbot meets my personal needs,* the more positively they evaluated their ability to influence the brand's decisions (*I believe the brand really listens to what I have to say (e.g., feedback));* correlation coefficient = 0.504). The highest positive correlation was discovered towards satisfaction with the brand (*I believe I enjoy dealing with this brand*; correlation coefficient = 0.518). Additionally, high perceptions of the chatbot's customization significantly correlated with the brand's commitment (*I believe I can see that the brand wants to maintain a relationship with me*; correlation coefficient = 0.422) and trustworthiness (*I believe I feel very confident about the brand*; correlation coefficient = 0.392).

Table 9. Summary of Appendix 12: Correlation between perceptions of the chatbot marketing efforts and the customer-brand relationships. (n=71)

	On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:

On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I believe the brand really listens to what I have to say (e.g., feedback)	I believe I enjoy dealing with this brand	I believe I feel very confident about the brand	I believe I can see that the brand wants to maintain a relationship with me
The chatbot has the knowledge to answer my questions	Correlation Coefficient	.277*	.253*	.159	.250*
The chatbot service agent provides recommendations on the company's products/services	Correlation Coefficient	.179	.135	.087	.230
The chatbot can offer immediate answers anytime and anywhere	Correlation Coefficient	.205	.259*	.224	.237*
I enjoy choosing products more if they are recommended by the chatbot than if I choose them myself	Correlation Coefficient	.268*	.217	.082	.049
I feel that using this chatbot meets my personal needs	Correlation Coefficient	.504**	.518**	.396**	.422**

Table 10 below reflects the dependencies between the chatbot marketing efforts and customer engagement. One of the striking details here is the effect of the chatbot customization and several engagement parameters. Thus, the strongest variables' relationships were discovered in terms of customization and cognitive absorption with the brand (*Time flies when I interact with the brand*; correlation coefficient = 0.495). Additionally, chatbot-customized service positively affects the readiness to recommend this brand to others (correlation coefficient = 0.428) and continue its usage (correlation coefficient = 0.409). Emotional connection to the brand is expressed in brand inspiration (correlation coefficient = 0.393) and enthusiasm (correlation coefficient = 0.370).

Interestingly, another significant dependency was identified in terms of the chatbot's ability to provide relevant knowledge, brand enthusiasm (correlation coefficient = 0.305), and willingness to remain loyal to the brand (correlation coefficient = 0.315).

Table 10. Summary of Appendix 13. Correlation between perceptions of the chatbot marketing efforts and the customer-brand engagement. (n=71)

	On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:

On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I feel enthusiastic about the brand	Brand inspires me	I say positive things about brand to other people	I like to continue using a brand	Time flies when I interact with the brand
The chatbot has the knowledge to answer my questions	Correlation Coefficient	.305**	.142	.176	.315**	.205
The chatbot service agent provides recommendations on the company's products/services	Correlation Coefficient	.237*	.001	.127	.168	.078
The chatbot can offer immediate answers anytime and anywhere	Correlation Coefficient	.185	.007	.141	.113	.067
I enjoy choosing products more if they are recommended by the chatbot than if I choose them myself	Correlation Coefficient	.056	.164	.194	.051	.457**
I feel that using this chatbot meets my personal needs	Correlation Coefficient	.370**	.393**	.428**	.409**	.495**

In brief, it seems that customization of chatbot service and adaptation to individual customer needs may extremely positively affect relationships with the brand itself. Particularly, the more customized chatbot assistance the user experienced, the more satisfied they were and the more positively they perceived the brand's attention to their needs and commitment to meet their expectations. Some aspects of customer engagement were also closely related to the tailoring of the chatbot service to the user's goals. Distinctively, customization supposedly had a positive effect on the customer's immersion with the brand and readiness to spread the word about it. In addition, the chatbot's knowledge may influence brand loyalty and enthusiasm.

4.6 Correlations between the chatbot communication quality, customer brand relationships, and customer engagement

The following subchapter analyzes the findings on the relationships between chatbot communication quality, customer-brand relationships, and customer engagement. Similar to the previous subchapter, it scrutinizes the strongest correlations between several Likert-scale expressions. Table 11 shows the correlation coefficients between the variables associated with chatbot communication quality and customer relationships with the brand.

Thus, the time efficiency of the chatbot communication (*Chatbots save a tremendous amount of time*) had a firm connection to all relationships' dimensions, including the level of satisfaction (correlation coefficient = 0.538), brand receptiveness (correlation coefficient = 0.509), and commitment (correlation coefficient = 0.505).

Moreover, trust in algorithmic service (*I can rely on chatbots' ability to outperform human beings in the role of human customer service)* was strongly linked to the brand's responsiveness towards customer needs (correlation coefficient = 0.454) and satisfaction (correlation coefficient = 0.465). Furthermore, the accuracy and completeness of the chatbot communication are positively related to satisfaction (correlation coefficient = 0.449) and brand attentiveness (correlation coefficient = 0.463).

Table 11. Summary of Appendix 14: Correlation between perceptions of the chatbot communication quality and the customer-brand relationships. (n=71)

		On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:			
On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I believe the brand really listens to what I have to say (e.g., feedback)	I believe I enjoy dealing with this brand	I believe I feel very confident about the brand	I believe I can see that the brand wants to maintain a relationship with me
I can rely on chatbots' ability to outperform human beings in the role of human customer service	Correlation Coefficient	.454**	.465**	.298*	.216
I am scared that chatbots could steal my personal data	Correlation Coefficient	.194	.166	.123	.100

and violate my privacy					
It is easy to find what I want by using chatbots	Correlation Coefficient	.293*	.266*	.210	.188
Chatbots are easy to use	Correlation Coefficient	.122	.261*	.277*	.233
Using the chatbot is more efficient than other forms of communication	Correlation Coefficient	.197	.209	.241*	.235*
Chatbots save a tremendous amount of time	Correlation Coefficient	.509**	.538**	.482**	.505**
Communication with a chatbot service agent is accurate and complete	Correlation Coefficient	.463**	.449**	.334**	.293*

Table 12 illustrates the level of relationships among various parameters of chatbot communication quality and customer engagement. The highest dependency was discovered in terms of chatbot timely communication and brand loyalty (correlation coefficient = 0.501), overall customer excitement (correlation coefficient = 0.459), and inspiration (correlation coefficient = 0.403). The accuracy of communication also seems to influence the willingness to continue brand usage (correlation coefficient = 0.381). Interestingly, the ability of chatbot communication to substitute the human alternative as well as the ease of finding required information provided by the chatbot positively correlated with emotional absorption (*Time flies when I interact with the brand),* with correlation coefficients of 0.425 and 0.37 correspondingly.

Table 12. Summary of Appendix 15: Correlation between perceptions of the chatbot communication quality and customer-brand engagement. (n=71)

	On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:				
On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:	I feel enthusiastic about the brand	Brand inspires me	I say positive things about brand to other people	I like to continue using a brand	Time flies when I interact with the brand

I can rely on chatbots' ability to outperform human beings in the role of human customer service	Correlation Coefficient	.230	.332**	.279*	.217	.425**
I am scared that chatbots could steal my personal data and violate my privacy	Correlation Coefficient	.166	.217	.031	.117	.229
It is easy to find what I want by using chatbots	Correlation Coefficient	.319**	.215	.179	.245*	.373**
Chatbots are easy to use	Correlation Coefficient	.139	.142	.121	.324**	.281*
Using the chatbot is more efficient than other forms of communication	Correlation Coefficient	.058	.251*	.157	.224	.214
Chatbots save a tremendous amount of time	Correlation Coefficient	.459**	.338**	.403**	.501**	.384**
Communication with a chatbot service agent is accurate and complete	Correlation Coefficient	.355**	.339**	.246*	.381**	.348**

In essence, the time efficiency of the chatbot communication and its enhanced functionality, exceeding human capabilities, were likely to influence the customer-brand relationships in terms of satisfaction and mutual control over the brand through the feedback. Additionally, the time efficiency highly resonated with the perceived brand commitment and confidence. Similarly, timely communication was found to correlate with brand loyalty, excitement, and positive word of mouth. Moreover, the chatbot's communicative ability to substitute human service had a strong relationship with the customer's immersion in the brand.

4.7 Respondents' perspective on the potential of the chatbot service in the fashion brands' interactions

This subchapter considers the insights on the potential usage of chatbots in fashion brands' communication based on the responses from all participants (n = 97), including those (n = 5) who had no prior experience with a chatbot.

Curiously, 28 % of the respondents (n = 27) buy clothes online, and 47% prefer both the in-store and online experience (n = 46), as shown in Figure 23. Given this high proportion of respondents who buy either exclusively online or along with offline purchases, it seems more reasonable for fashion brands to leverage their online experience with the adoption of a conversational interactive interface.

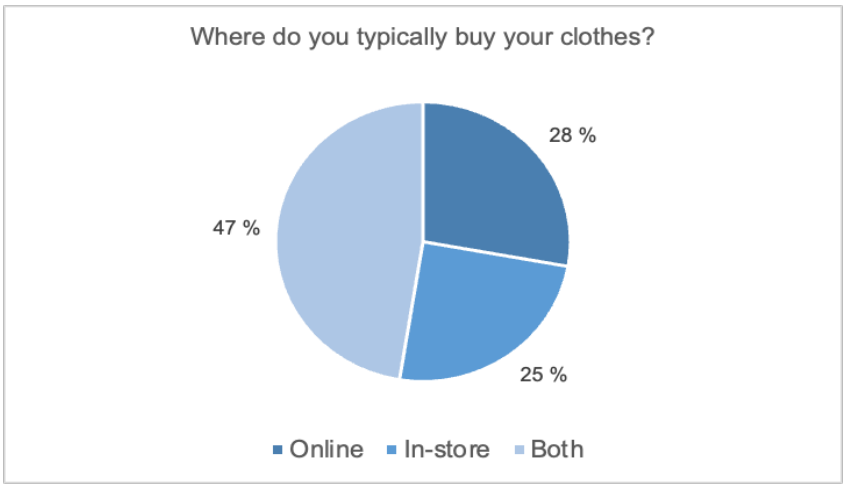

Figure 23. Clothes purchasing habits (n=97)

Remarkably, 20 % of participants (n = 19) have already used chatbots when buying or selecting clothes (Figure 24). Among the fashion and cosmetics brands, mentioned in the open-ended section regarding the previous chatbot experience, were large and well-known Zara, Mango, Spanish clothing design and manufacturing companies (Zara.com; Mango.com), Marimekko, Finnish textiles, clothing, and home furnishings company (Marimekko.com), ONLY, part of the Danish fashion group Bestseller (Only.com), Douglas, German, cosmetics retailer (Douglas.de), Loavies, Netherlands based fashion brand (Loavies.com), Nykaa, Indian fashion e-commerce company (nykaa.com), Louis Vuitton, French luxury fashion house (LV.com), and Sephora, French cosmetics brand, owned by LVMH Moët Hennessy Louis Vuitton (Sephora.com), and Estée Lauder, American multinational cosmetics manufacturer (EsteeLauder.com).

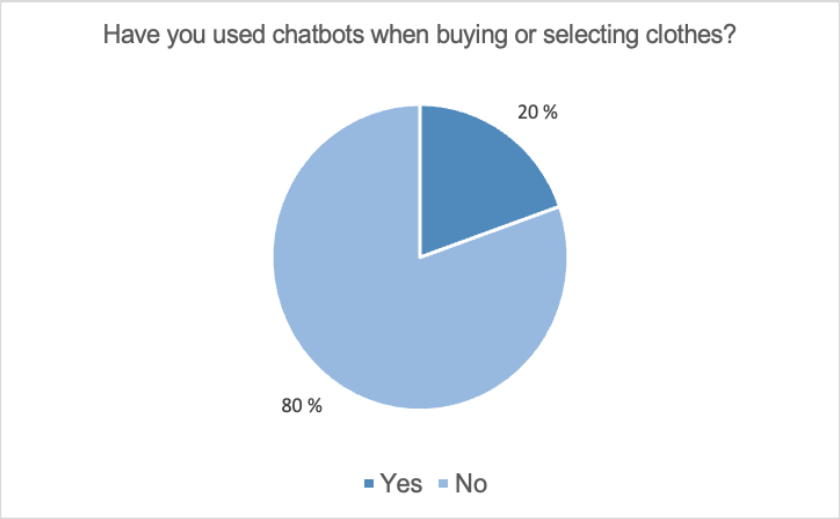

Figure 24. Respondents' previous experience with the fashion brands' chatbots (n=97)

Additionally, when responding to the question about their willingness to use chatbots when dealing with any fashion brands, a significant proportion of the respondents expressed a moderate level of inclination (Figure 25), while 33% denied any interest in this option. Overall, this trend could imply that even though there was some level of interest in utilizing chatbots, a significant part of the participants could have some reservations, which could be identified in further studies. There could be research exploring the reasons behind the users' resistance and the differences among the age groups. In the context of this research, the differentiation among the age groups was not considered since the sample size was imbalanced with the dominance of the respondents 18–26 years old (n = 60), lacking the representatives (n = 29) of the Millennials (27–42 years old) and X-generation (n = 8, 43–58 years old).

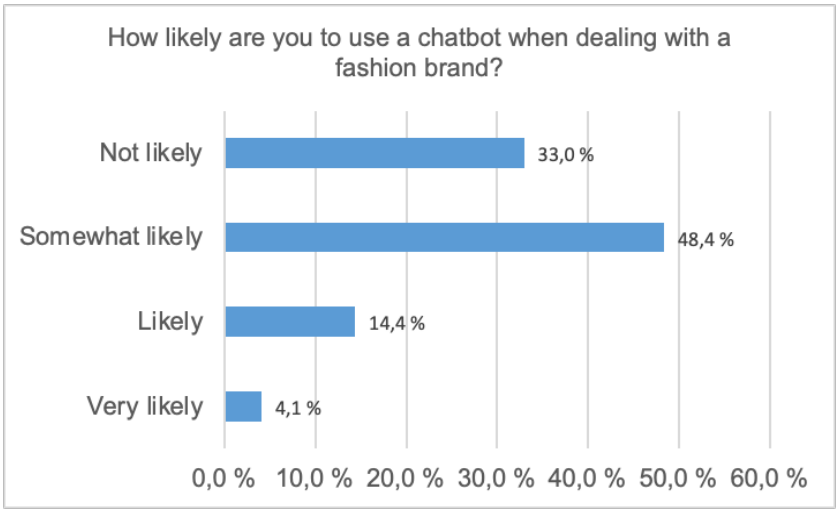

Figure 25. Likability rating (n=97)

Further, the respondents were offered to select any number of possible ways of using chatbots in the context of fashion brands (Figure 26). It was revealed that the majority of participants would be interested in resolving issues related to delivery, returns (70.1%), or orders (56.7 %). This was followed by inquiries on the product details, including fabrics, sizes, material origin, or any other specifications (53.6 %). A significant part of respondents would make a complaint (44.3 %) or find a human service agent (40.2 %). The rest of the options, involving style or outfit recommendations (12.4 %), making (12.4 %) and paying (9.3 %) a purchase, and newsletter subscription (8.2 %) were relatively less relevant for the users. 4.1 % of the respondents would not use any of the offered options.

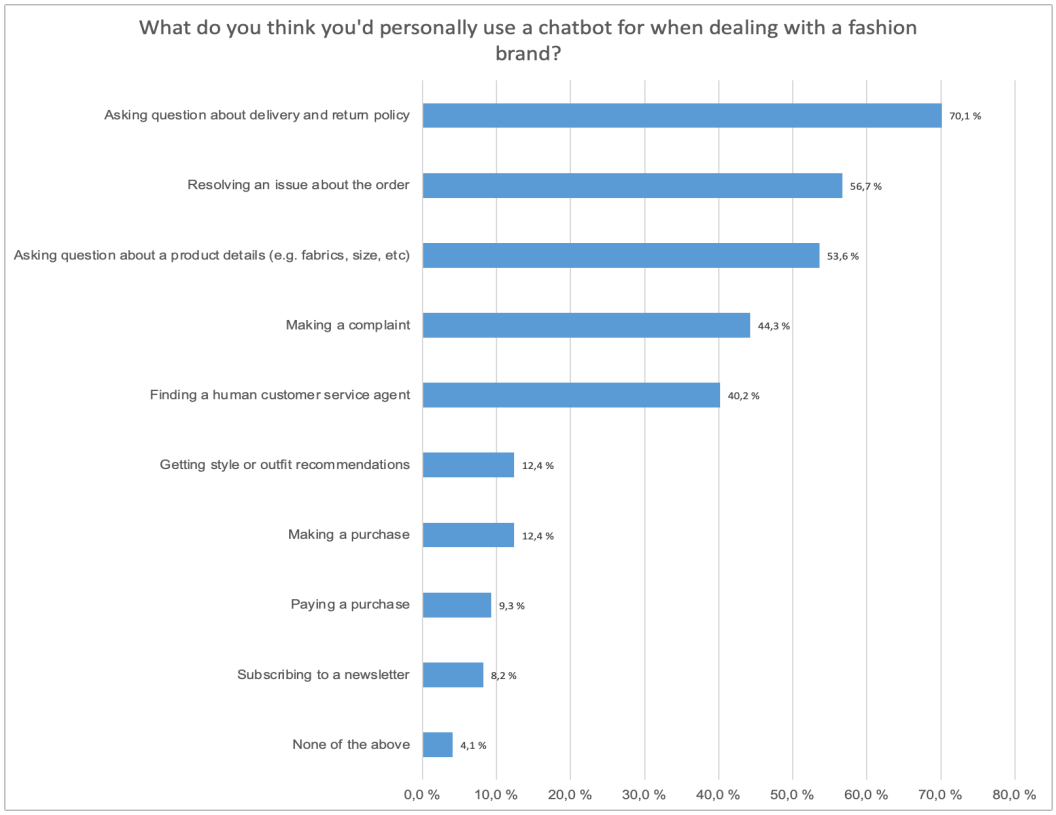

Figure 26. Desired chatbot service from the respondents' perspective (n=97)

To summarize, the survey results have exposed that there is a potential for fashion brands to accommodate chatbots more intensively on their platforms since a relatively significant number of respondents practiced online purchasing. Despite the low proportion of those who had prior experience with chatbot usage while dealing with a fashion brand and the lack of confidence and decisive inclination to utilize that in the context of clothes selection and purchasing, there is still room for further research to discover the background of these reservations and blockers. The finding related to the potential desired functionalities of the chatbots revealed that the respondents were more likely to use chatbots while addressing practical and logistical issues, like delivery, return, or orders.

There was also a high proportion of participants interested in the product details. The low interest in style recommendations, purchase making, or newsletter subscriptions could indicate that the users prefer making decisions on their own or need more customized assistance that they do not associate with an automated chatbot service. Overall, these insights could be extremely valuable for fashion brands considering using chatbots in their communication and engagement with customers to develop chatbot functions or features better aligned with the customers' needs and expectations.

5 Discussion

The previous chapter addressed the results of the chatbot marketing efforts and heuristic evaluations in the context of Finnish fashion brands. Additionally, it comprehensively scrutinized the results of the quantitative survey, which aimed to explore the extent of chatbot usage and identify any influence of chatbot marketing efforts on customer-brand relationships and the potential of chatbots for fashion brands.

The following chapter outlines the summary of key findings and their outcomes. It provides recommendations on the better ways to leverage chatbot services for Finnish fashion brands. Furthermore, it discusses the reliability and the ethics of the research as well as reflects on the researcher's personal learnings.

5.1 Key findings

The study explored the application of the chatbot marketing efforts among local fashion brands, the level of chatbot application among the users, their response to chatbot marketing efforts, customer-brand relationships, and customer brand engagement, to inform the ways of chatbot usage experience amelioration.

When approaching the local fashion market, it seems that the brands are relatively reluctant to adopt chatbots for their operations, since only a scarce number of them have implemented this feature on their website. The chatbots, currently used by Marimekko, ASK Scandinavia, Moimoi Accessories and Morico, are menu-based basic types of chatbots, offering limited functionality including order tracking (ASK Scandinavia, Moimoi, Morico) or general information on return policy, membership, orders, or limited collections (Marimekko). While these chatbots do manage to provide information, interaction, and accessibility parameters, they lack entertainment and customization aspects. The local fashion brands' chatbots seem to be consistent in the visual and linguistic parameters but fail to understand contextual information and interpret more complex issues. At the same time, by providing these basic concise menu options, they give the users more autonomy over their actions, decreasing cognitive effort (Nguyen et al. 2022, 3.), eliminating possible errors (Grand View Research 2023; Hawkins 2023; Medium 2021), and making it easier to navigate the key most popular topics without spending extra time while browsing the website.

From the users' perspective, the study found that there is a high proportion of participants who use chatbots in the context of e-commerce and Banking, Financial, and Insurance services on a monthly or quarterly basis. Among the brands of the chatbot user application most frequently mentioned have been Amazon, Nordea, Spotify, Sephora, Vodafone, Zara, and Nykaa. The Finns

mostly referred to their previous experience with OP bank, health services such as Maisa and Terveystalo, airline carriers Ryanair and Finnair as well retailers, including Swappie, Marimekko, and Verkkokauppa.

In terms of user perception of their selected brands' chatbot marketing properties, users' reactions have been found to be moderately positive and partially consistent with the prior research results (Cheng & Jiang 2022; Chung et al 2020). Particularly, the respondents found the interface accessibility, ability to interact, and provision of information to be satisfactory. However, customized assistance according to the individual user needs or entertainment property have been valued as relatively low.

The research complemented the studies on the chatbot communication quality, encompassing credibility, accuracy, and competence measures (Cheng & Jiang 2022; Chung et al 2020; Cordero et al. 2022; Murtrelli et al 2023; Ruan & Mezei 2022; Tsai et al. 2021). The respondents have found the competence dimensions such as the easiness of use and the time effectiveness of a brand's chatbot they used to be the most sufficient while being extremely skeptical about its accuracy. At the same time, contrary to the prior research findings (Murtrelli et al 2023), even though they do not generally trust the bot's capabilities to outperform human agents, they do not perceive it as harmful or intrusive to their personal data.

When reflecting on their relationships with the brands, respondents largely expressed confidence in the brand, despite the perceived lack of brand attention to their needs. In terms of engagement, they expressed their behavioral intention to continue using the brand and share positive experiences with others, while at the same time being less emotionally and cognitively attached and finding the brand less inspirational and immersive. This may stem from the fact that a large portion of the respondents cited previous experiences related to functional or utilitarian brands operating in banking, insurance, or healthcare, which, according to earlier studies (Fernandes & Moreira 2019), more positively resonate with confidence and satisfaction than emotional connections with the brand. The general trends were consistent among the geographic groups, with only minor discrepancies on the topics of eliciting brand inspiration, time efficiency, and chatbot efficiency compared to other forms of communication. Interestingly, the Finns were the most polarized in their opinions for each thematic section, which requires further investigation. Additionally, it is worth noting that respondents have been lacking strong and definite opinions on the brand's attitude and brand engagement while being more precise in their reflection on the chatbot interaction.

Customization was found to be more influential in terms of the effect of the chatbot marketing efforts on customer-brand relationships and customer engagement. It significantly correlates with satisfaction and the brand's attention to their needs and commitment to meet their expectations.

Customization also seems to positively influence cognitive absorption with the brands, the brand's continuous usage, and positive word-of-mouth. In addition, the chatbot's knowledge and competence may influence brand loyalty and enthusiasm.

It seems that chatbot communication quality may also positively affect relationships with the brand itself. In essence, the time efficiency of the chatbot communication and its enhanced functionality, exceeding human capabilities, are likely to influence the customer-brand relationships in terms of satisfaction and mutual control over the brand through the feedback. Additionally, the time efficiency highly resonated with the perceived brand commitment and confidence. Similarly, timely communication was found to correlate with brand loyalty, excitement, and positive word of mouth. Moreover, the chatbot's communicative ability to substitute human service had a strong relationship with the customer's immersion in the brand. This may partially comply with the socio-technical perspective of the research stream (Kotler et al. 2021, 171; Morgan-Thomas et al. 2020), suggesting that the chatbots serve as effective amplifiers of the brand, significantly influencing attitudes and engagement with the brand (Cheng & Jiang 2022).

The user insights also exposed that there is a potential for fashion brands to accommodate chatbots more intensively on their platforms since a relatively significant number of respondents practiced online purchasing. Despite the low proportion of those who had prior experience with chatbot usage while dealing with a fashion brand and the lack of confidence and decisive inclination to utilize that in the context of clothes selection and purchasing, there is still room for further research to discover the background of these reservations and blockers. The finding related to the potential desired functionalities of the chatbots revealed that the respondents were more likely to use chatbots while addressing practical and logistical issues, like delivery, return, or orders. There was also a high proportion of participants interested in the information on the product details. The low interest in style recommendations, purchase making, or newsletter subscriptions could indicate that the users prefer making decisions on their own or need more customized assistance that they do not associate with an automated chatbot service. Overall, these insights could be extremely valuable for fashion brands considering using chatbots in their communication and engagement with customers to develop chatbot functions or features better aligned with the customers' needs and expectations.

5.2 Recommendations

Based on the Finnish fashion brands' chatbot analysis and the survey insights, this research allows for the development of recommendations on how to improve customer-brand relationships and engagement. Specifically, when planning the integration of chatbots on brand platforms for marketing,

it is highly recommended to consider guiding principles such as accessibility, customization, interaction, information, and entertainment.

Fashion brands bring a lot of emotional value to consumers, including pride, status, self-perception, confidence, and empowerment. Therefore, it is important to develop not only the purely functional side of the chatbot interfaces, making them extremely useful, convenient, and time-efficient, but also invest in the entertaining dimension by adding human-like reactions (e.g., emojis, GIFs), catchy chatbot avatars, and using language enriched with colors and fashion terms.

Second, particular emphasis should be put on customization development in order to ensure customer satisfaction and emotional connections. One of the budget-efficient ways is to research the target audience to better understand its expectations and demographics for the e-service and tailor the interface and its functional options accordingly. More advanced technical customization of chatbots based on contextual data with the help of AI and NLP can be expensive, but it also brings an advantage. Personalization of the chatbot's service, implying individual recommendations based on previous product searches, style preferences, orders, and inquiries, may positively influence emotional brand attachment and loyalty.

Third, the brands should ensure the communication quality of the chatbots by relying on the principles of communication credibility, competence, and accuracy. It is recommended to introduce a quantitative measurement system like thumbs up/down or star ratings to get customers' immediate feedback on the chatbot's quality. Additionally, the brand should monitor the most frequent queries to permanently update the bots accordingly.

5.3 Validity, Reliability, and Ethics

The conduct of the research was entirely guided by ethical principles. It did not include any violations of intellectual property in the form of unauthorized use of sources and the prior research was properly attributed. Along with that, the survey data collection was conducted in a responsible and trustworthy manner, when all the participants were informed about the topic of the study, its goals and the way their responses would be analyzed. The researcher also ensured the respondents' confidentiality and data privacy.

The reliability of the research results is ensured by the consistency of standardized measures such as heuristic evaluation and survey instruments. The survey construct consistency was confirmed with a high Cronbach's alpha coefficient while the survey response rate was also sufficient

accounting for 93.5 %. All the research procedures were well documented and, therefore, could be easily repeated.

To guarantee the internal validity of the research the there have been used measures adapted from the prior research which are relevant to the research objective. The external validity was partially compromised since the sampling population was quite imbalanced in terms of age and geographic location with a skew towards younger participants living outside of Finland. The researcher should involve more local respondents to get more diverse insights, by reaching them via Finnish-speaking social media groups. Therefore, the results may be generalized to a limited degree.

The conduct of the research was entirely guided by ethical principles. It did not include any violations of intellectual property in the form of unauthorized use of sources and the prior research was properly attributed. Along with that, the survey data collection was conducted in a responsible and trustworthy manner, when all the participants were informed about the topic of the study, its goals, and the way their responses would be analyzed. The researcher also ensured the respondents' confidentiality and data privacy.

5.4 Further research

This research expands the general knowledge about the chatbot's potential in marketing, especially in the context of fashion brands, since it has practical implications for marketing and brand managers. However, there are some limitations in this study that also require further investigation. Thus, in reference to the Finnish fashion market, the sampling did not include a significant proportion of the local residents, and their previous chatbot experiences were underrepresented. Therefore, it is highly recommended to focus the analyses primarily on the Finnish audience. To get enough qualifying insights, it is suggested to distribute survey questionnaires via fashion brands' social media channels to get access to the target audience.

The initially planned interviews with the Finnish fashion brands were not realized due to the brands' lack of response or lack of interest. These interviews could bring valuable insights on their experiences and perspectives on chatbot incorporation. Hence, it is advised to contact them well in advance, and, ideally, all communication should be held in the local language to mitigate possible resistance based on the foreign language factor.

Furthermore, it is suggested to study the potential blockers or constraints on the willingness to use chatbots while dealing with fashion brands. It allows brands to identify factors that hinder customers from adopting chatbots in apparel shopping and effectively address them by developing more user-friendly chatbot systems that comply with consumers' needs. Additionally, potential research could cover the discrepancies based on age variables to distinguish any specific age group that is

more likely to utilize chatbots and tailor marketing communication strategies to target them more efficiently. Moreover, more detailed research focusing on the specific areas of potential chatbot adaptation among customers in the context of fashion would also be recommended.

5.5 Reflection on learning

The work on the thesis enabled the researcher to considerably expand her knowledge of the digital marketing omnichannel experience, specifically chatbot interfaces. She extensively studied market reviews, statistics, and the prognosis of the chatbot application in the context of marketing. Various aspects of customer-brand relationships, customer-brand engagement, and their interconnection were rigorously researched.

While working on the empirical part, the researcher significantly improved her expertise in data collection, mainly in the survey questionnaire design and social media content creation for the survey promotions. She learned a lot about the ways of phrasing various statements, respondent attention check techniques, and survey instructions' formulating and got some new ideas for future research within master's studies while completing other researchers' surveys published on the Survey Circle and Survey Swap platforms. Additionally, she harnessed practical skills in the Webropol survey creation tool and the IBM SPSS Statistics data analysis software, even though she had prior experience with them.

In terms of career development, this research allowed the researcher to expand her networking with other professionals who share similar interests in marketing automation and branding. More than that, project management skills, including time and risk management, communication, and planning, were severely developed.

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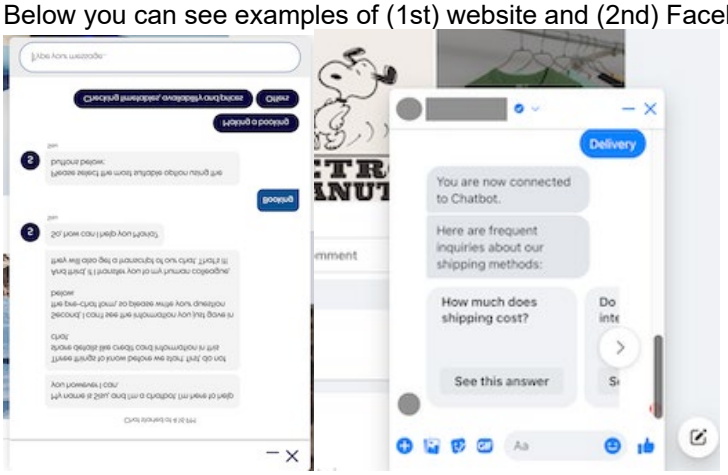
Appendices

Appendix 1. Survey Frame

Thematic Category	Questions
Introduction	Dear Participant, Welcome to the survey for my thesis research! The purpose of this survey is to explore the impact that chatbots have on the way customers interact with brands. You can share your chatbot perceptions by investing 5-10 minutes of your time. Your insights are crucial in helping me better evaluate the potential of chatbot marketing and how it can be further leveraged to create amazing customer service for Finnish fashion brands. Your responses will be kept anonymous, and the data collected will be kept confidential and used solely for academic purposes. If you have any feedback or questions about the survey or my research, please do not hesitate to contact me - evelina.khonkanen@myy.haaga.helia.fi. Thank you for taking the time to complete this survey. I look forward to learning from your invaluable insights.
Instructions	Definition of Chatbots: "Chatbots are computer programs designed to simulate human conversation through text or voice interactions. In simpler terms, chatbots are like virtual assistants that can communicate with people through messaging apps, websites, or voice-enabled devices". Below you can see examples of (1st) website and (2nd) Facebook chatbots: 

Previous chatbot experience section (IQ 2)	**Have you ever chatted with a chatbot? Yes** • Yes • No Rule: If option is selected Jump to page “Where do you typically buy your clothes?” • Can't remember Rule: If option is selected Jump to page “Where do you typically buy your clothes?” **2. In which spheres have you used chatbots? *** Choose all that apply to you o Retail and E-commerce o Healthcare o Banking, Financial or Insurance service(s) Media and o Entertainment o Travel and Tourism o Other **3. How often do you use chatbots? *** • Daily • Weekly Monthly • Once a semester • Once a year • Never
Chatbot Marketing Efforts (IQ3) – Interaction – Information – Accessibility – Entertainment – Customization	**4. Could you recall some brands which chatbots have you used? *** _____ **5. On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5: *** – The chatbot has the knowledge to answer my questions – The chatbot service agent provides recommendations on the company’s products/services – The chatbot can offer immediate answers anytime and anywhere – I enjoy choosing products more if they are recommended by the chatbot than if I choose them myself – I feel that using this chatbot meets my personal needs
Chatbot Communication Quality – Credibility (trust and risk premises)	**6. On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5: *** – I can rely on chatbots' ability to outperform human beings in the role of human customer service

– Competence (Perceived usefulness and perceived ease of use, time saving efficiency) – Accuracy	– I am scared that chatbots could steal my personal data and violate my privacy – It is easy to find what I want by using chatbots – Chatbots are easy to use – Using the chatbot is more efficient than other forms of communication – Chatbots save a tremendous amount of time – Communication with a chatbot service agent is accurate and complete
CBR (IQ3) – Control Mutuality – Satisfaction – Brand Trust – Commitment	**7. On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous experience with the brands you mentioned Question 5: *** – I believe the brand really listens to what I have to say (e.g. feedback) – I believe I enjoy dealing with this brand – I believe I feel very confident about the brand – I believe I can see that the brand wants to maintain a relationship with me
CBE (IQ3) – Affective dimension – Behavioral dimension – Cognitive dimension	**8. On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous experience with the brands you mentioned in Question 5: *** – I feel enthusiastic about the brand Brand inspires me – I say positive things about brand to other people – I like continue using a brand – Time flies when I interact with the brand
Chatbot Potential for the fashion brands (IQ4)	**9. Where do you typically buy your clothes? *** • Online • In-store • Both **10. Have you used chatbots when buying or selecting clothes *** • Yes • No **11. How likely are you to use a chatbot when dealing with a fashion brand? *** • Very likely • Likely • Somewhat likely • Not likely **12. What do you think you'd personally use a chatbot for when dealing with a fashion brand? *** Choose all that apply to you o Asking question about a product details (e.g. fabrics, size, etc) o Asking question about delivery and return policy Resolving an issue about the order

	○ Making a complaint ○ Making a purchase ○ Paying a purchase ○ Getting style or outfit recommendations ○ Subscribing to a newsletter ○ Finding a human customer service agent ○ None of the above ○ Other
Demographics	**13. What are your age group? *** • 18-26 • 27-34 • 35-42 • 43-50 • 51-58 • 59-64 • 65-74 • 74+ **14. Gender: How to identify? *** • Male • Female • Non-binary • Prefer not to say **15. Where do you live? *** • In Finland • Other European country • Other country (outside of Europe) **16. What is your current employment status? *** • Employed • Self-employed • Unemployed • Student • Retired • Other **17. Education *** • Comprehensive school • High School • Bachelor's Degree • Master's Degree or higher • Other

Appendix 2. Data collection through the survey

Platform	Date	Details
Haaga-Helia UAS	31.03.2023	A research Permit Application was sent with the request to distribute the survey among the BITE students (IT field), including the thesis goal description, survey methods, target population and the cover letter to the questionnaire (Appendix 4)
Webropol	14.04.2023	Survey access was opened
WhatsUp	14.04.2023	The link was shared among personal network of friends
LinkedIn	17.04.2023	The survey link with a promotional text was published on the personal profile and “Marketing Professionals” group
Reddit	17.04.2023	The survey link with a promotional text was published in the group “Survey Exchange”
Survey Circle Portal	17.04.2023	Survey was published
Survey Swap Portal	17.04.2023	Survey was published
Twitter	17.04.2023	Survey invitation posts in English and Finnish were published
LinkedIn	18.04.2023	Promotional survey participation post was published in the Survey Exchange group
Haaga-Helia UAS	21.04.2023	The Research Permit was granted and redirected to the HH study services for further distribution
LinkedIn	21.04.2023	Republishing the post with the marketing text, survey link and the promotional banner in the “Survey Exchange” group
Facebook	22.04.2023	Survey was published in “Survey Exchange” and “Survey Circle Panel” groups
LInkedIn	24.04.2023	Republishing the post with the survey link on the personal page
LinkedIn	28.04.2023	Republishing the post with the survey link in the “Survey Exchange” group
LinkedIn, Facebook	18.04.2023-02.05.2023	Filling out the other fellow researchers’ surveys (approx. 10–15 per day) in exchange in the following groups “Survey Exchange”, “Survey Circle Panel”

Appendix 3. Interview Invitation Cover Letter Template (Example of Arela brand)

Hello Dear Sir/Madam,

I hope you this message finds you well!

I am Evelina, a BD student at Haaga-Helia University of Applied Sciences. I am writing to invite you to participate in the interview for my thesis research on the topic of "The Role of Chatbot Marketing Efforts in Building Customer-Brand Relationships in the Finnish Fashion Industry". The thesis aims to identify the impact of AI-powered chatbot marketing efforts on the quality of customer brand relationships (engagement and loyalty). Within my research, as part of my data collection process, I conduct interviews with the Finnish fashion brands, as subject matter experts, and also set up a survey for the users to figure out their perception of that tool throughout their customer journey.

Arela is one of the Finnish brands I sincerely love for its unique design, and sustainable business approach and truly admire the adoption of a new digital interface (live chat service) to make the customer experience smooth, frictionless, and enjoyable. It would be a great opportunity to hear about your experience on how you see the potential of this conversational technology in your marketing practice and how it contributes to Arela's overall performance.

I would appreciate it if you could find a max. 30 min for the interview and share your thoughts.

Your insights will be extremely valuable for my research and findings further leveraged to create amazing customer experiences for the Finnish textile, clothing, and fashion brands

If you are able to participate in the online interview please suggest a day and time that suits you and I'll do my best to be available.

In case you have any questions about the topic, objectives, interview format, question samples, confidentiality or ethical issues, etc. I am happy to provide further documents and details.

Kind regards,
Evelina Khonkanen

Appendix 4. Cover Letter to the questionnaire directed to the BITE students

Dear [Name],

I am Evelina and I am writing to invite you to participate in a survey for my thesis research on the topic of "**The Role of Chatbot Marketing Efforts in Building Customer-Brand Relationships in Finnish Fashion Industry**". The purpose of this survey is to explore the effect of chatbots on customer-brand engagement.

The fashion industry is constantly evolving, and with the rise of technology, chatbots have become a popular tool for brands to communicate with their customers. Chatbots are computer programs designed to simulate conversation with human users, and they can be used for various purposes, such as customer service, sales, and marketing.

Your participation in this survey is crucial to help me gain insights into your perception of previous chatbot experience with different brands or spheres. Your replies will be invaluable in helping me to evaluate the potential of the chatbot marketing and develop recommendations on how Finnish fashion brands can effectively adopt chatbots to improve customer experiences.

Your responses will be kept anonymous, and the data collected will be used solely for academic purposes.

The survey will take approximately 5-10 minutes to complete, and your participation is entirely voluntary. You are free to withdraw from the survey at any time without any consequences. Please note that your responses will be kept confidential and only accessible to me as the researcher.

To participate in the survey, please click on the following link:
https://link.webropolsurveys.com/S/ADF6A62E9ACD25AB

If you have any questions about the survey or my research, please do not hesitate to contact me - evelina.khonkanen@myy.haaga.helia.fi.

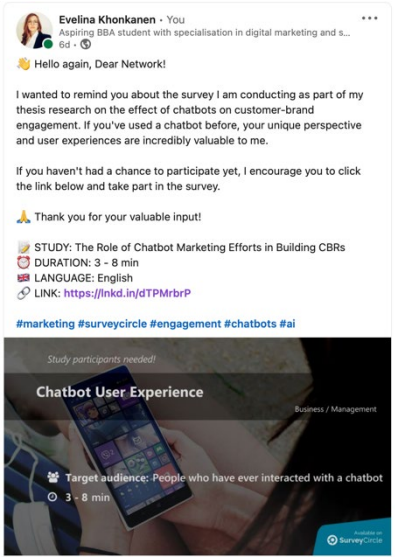
Thank you in advance for your participation.

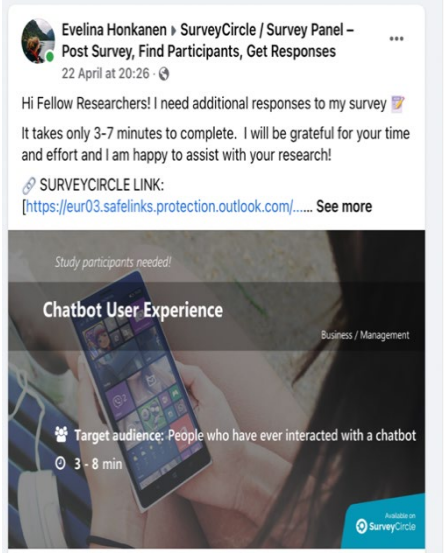
Sincerely,
Evelina Khonkanen

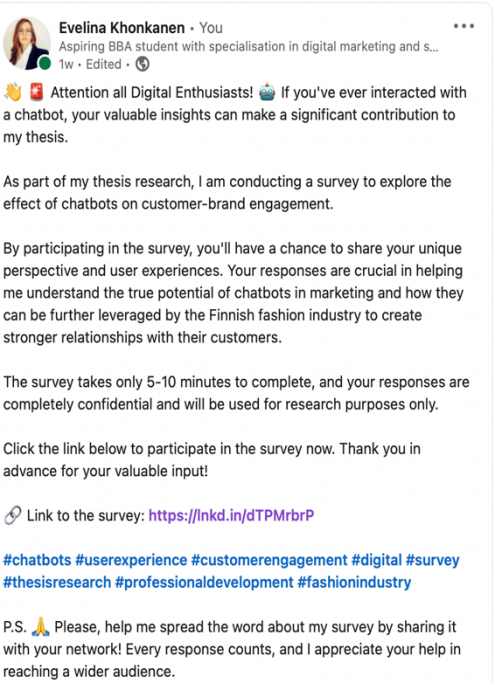
Appendix 5. Number of respondents per day

Number of responses		
Date	Number per day	Total number
17.4.2023	3	3
18.4.2023	5	8
19.4.2023	8	16
20.4.2023	1	17
21.4.2023	17	34
22.4.2023	2	36
23.4.2023	2	39
24.4.2023	13	52
25.4.2023	8	60
26.4.2023	5	65
27.4.2023	9	74
28.4.2023	4	78
29.4.2023	3	81
30.4.2023	2	83
1.5.2023	11	94
2.5.2023	3	97

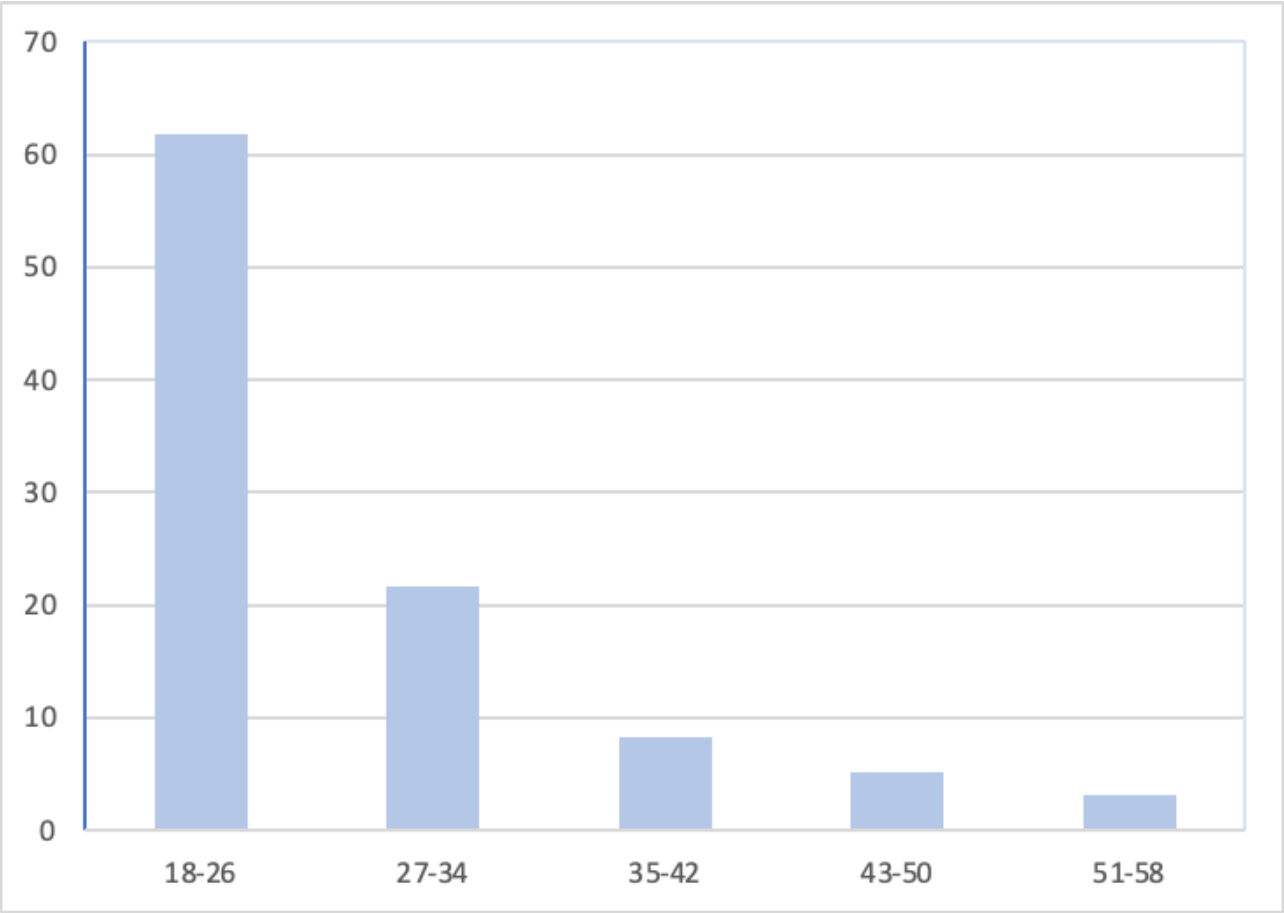
Appendix 6. Social media survey promotional publications



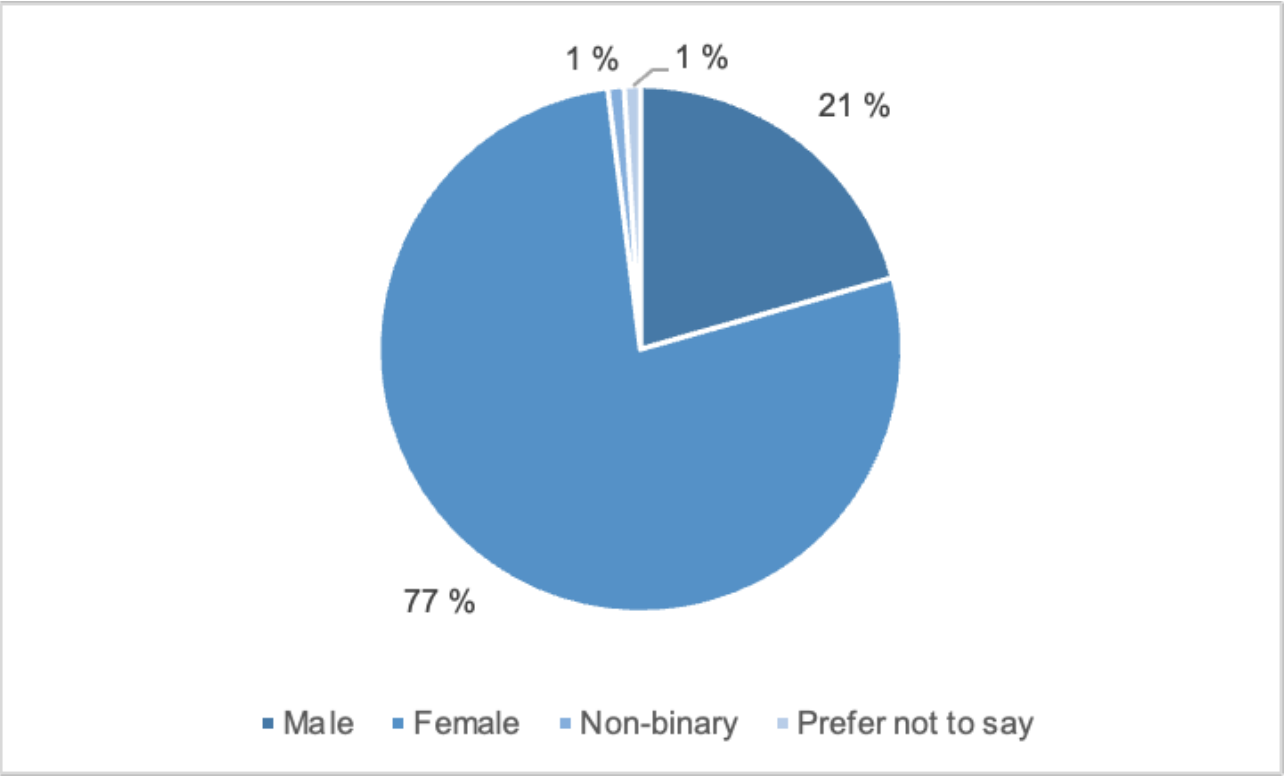




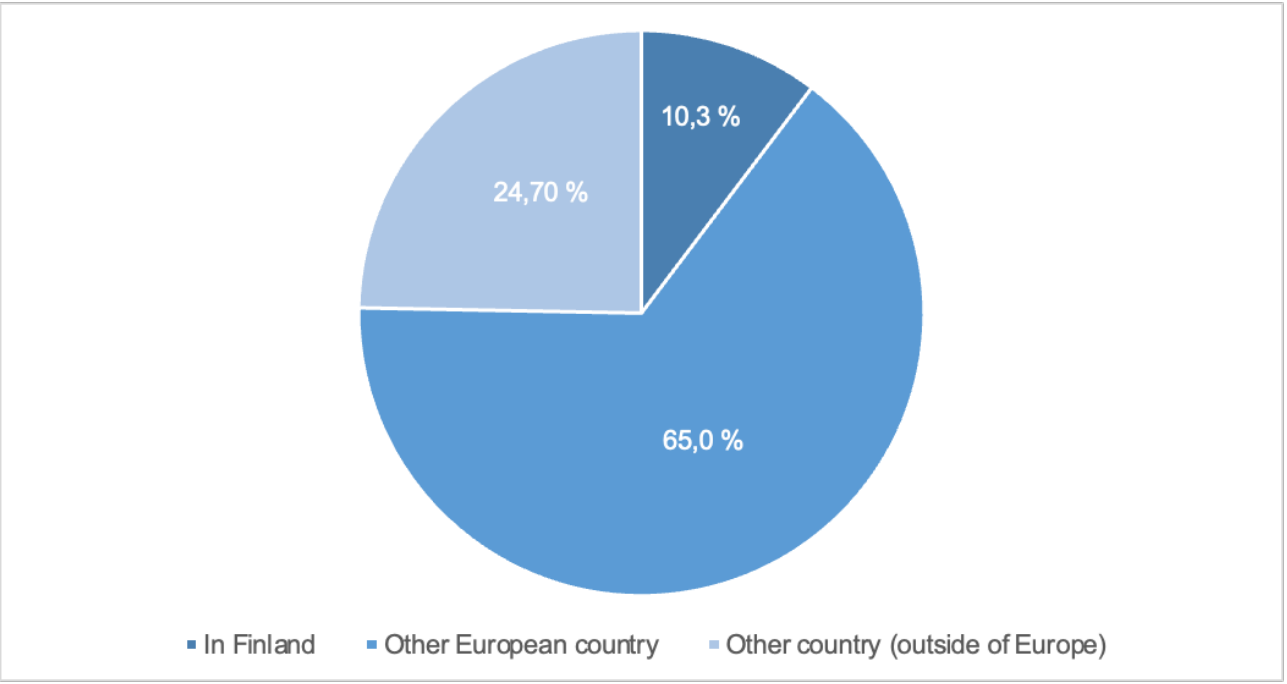
Appendix 7. Age distribution of participants (n=97)



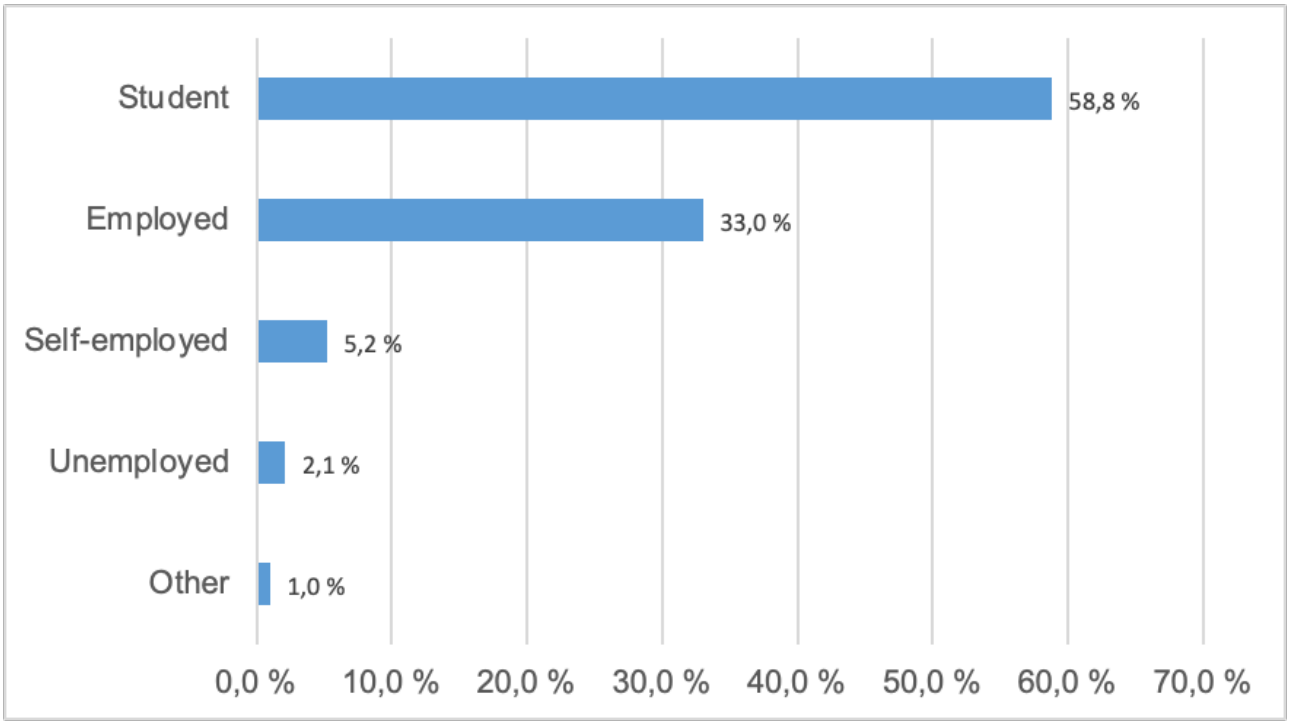
Appendix 8. Gender distribution of participants (n=97)



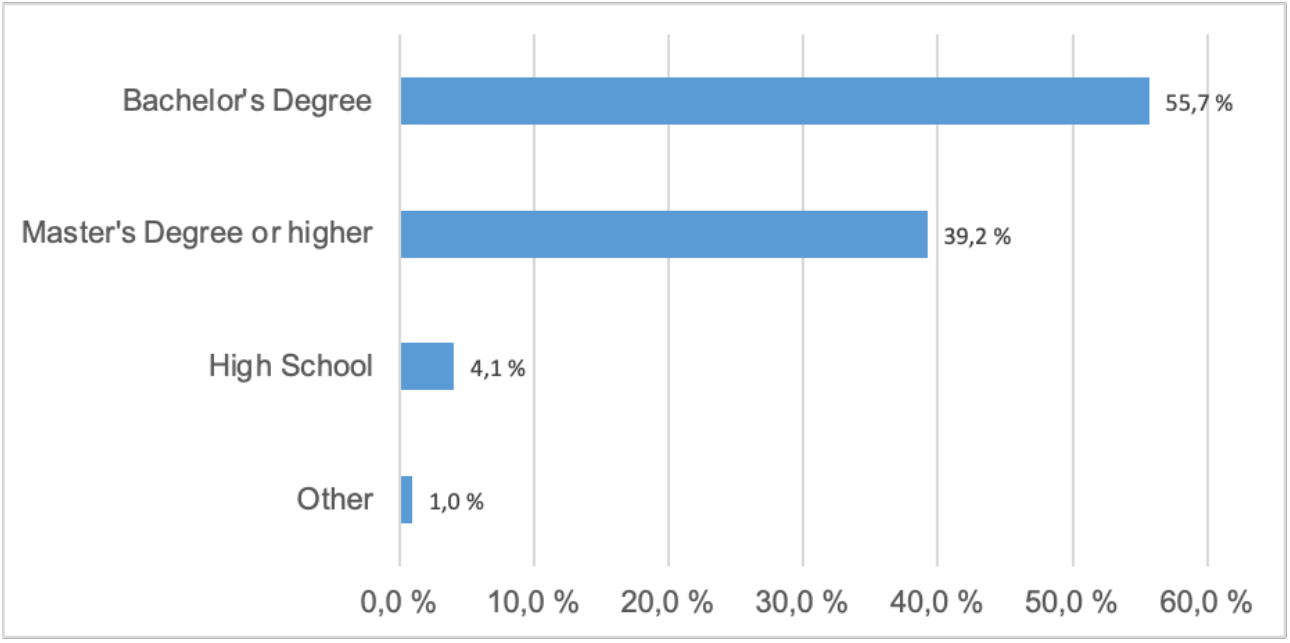
Appendix 9. Geographic distribution of participants (n=97)



Appendix 10. Distribution of participants by employment status (n=97)



Appendix 11. Distribution of participants by education level (n=97)



Appendix 12. Correlation between perceptions of the chatbot marketing efforts and customer-brand relationships (n=71)

		On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:			
On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I believe the brand really listens to what I have to say (e.g., feedback)	I believe I enjoy dealing with this brand	I believe I feel very confident about the brand	I believe I can see that the brand wants to maintain a relationship with me
The chatbot has the knowledge to answer my questions	Correlation Coefficient	.277*	.253*	.159	.250*
	Sig. (2-tailed)	.019	.033	.184	.035
	N	71	71	71	71
The chatbot service agent provides recommendations on the company's products/services	Correlation Coefficient	.179	.135	.087	.230
	Sig. (2-tailed)	.134	.260	.470	.054
	N	71	71	71	71
The chatbot can offer immediate answers anytime and anywhere	Correlation Coefficient	.205	.259*	.224	.237*
	Sig. (2-tailed)	.086	.030	.061	.047
	N	71	71	71	71
I enjoy choosing products more if they are recommended by the chatbot than if I choose them myself	Correlation Coefficient	.268*	.217	.082	.049
	Sig. (2-tailed)	.024	.070	.498	.685

	N	71	71	71	71
I feel that using this chatbot meets my personal needs	Correlation Coefficient	.504**	.518**	.396**	.422**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001
	N	71	71	71	71

Appendix 13. Correlation between the perception of the chatbot marketing efforts and customer-brand relationships (n=71)

		On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:				
On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I feel enthusiastic about the brand	Brand inspires me	I say positive things about brand to other people	I like to continue using a brand	Time flies when I interact with the brand
The chatbot has the knowledge to answer my questions	Correlation Coefficient	.305**	.142	.176	.315**	.205
	Sig. (2-tailed)	.010	.237	.142	.007	.086
	N	71	71	71	71	71
The chatbot service agent provides recommendations on the company's products/services	Correlation Coefficient	.237*	.001	.127	.168	.078
	Sig. (2-tailed)	.047	.996	.292	.160	.520
	N	71	71	71	71	71
The chatbot can offer immediate answers anytime and anywhere	Correlation Coefficient	.185	.007	.141	.113	.067
	Sig. (2-tailed)	.123	.951	.241	.350	.579
	N	71	71	71	71	71
I enjoy choosing products more if they are recommended by the chatbot than if I	Correlation Coefficient	.056	.164	.194	.051	.457**

choose them my-self						
	Sig. (2-tailed)	.645	.171	.106	.673	<.001
	N	71	71	71	71	71
I feel that using this chatbot meets my personal needs	Correlation Coefficient	.370**	.393**	.428**	.409**	.495**
	Sig. (2-tailed)	.002	<.001	<.001	<.001	<.001
	N	71	71	71	71	71

Appendix 14: Correlation between perceptions of the chatbot communication quality and the customer-brand relationships. (n=71)

		On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:			
On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I believe the brand really listens to what I have to say (e.g., feedback)	I believe I enjoy dealing with this brand	I believe I feel very confident about the brand	I believe I can see that the brand wants to maintain a relationship with me
I can rely on chatbots' ability to outperform human beings in the role of human customer service	Correlation Coefficient	.454**	.465**	.298*	.216
	Sig. (2-tailed)	<.001	<.001	.011	.071
	N	71	71	71	71
I am scared that chatbots could steal my personal data and violate my privacy	Correlation Coefficient	.194	.166	.123	.100
	Sig. (2-tailed)	.105	.167	.306	.407
	N	71	71	71	71
It is easy to find what I want by using chatbots	Correlation Coefficient	.293*	.266*	.210	.188
	Sig. (2-tailed)	.013	.025	.079	.117
	N	71	71	71	71
Chatbots are easy to use	Correlation Coefficient	.122	.261*	.277*	.233

	Sig. (2-tailed)	.310	.028	.019	.050
	N	71	71	71	71
Using the chatbot is more efficient than other forms of communication	Correlation Coefficient	.197	.209	.241*	.235*
	Sig. (2-tailed)	.099	.080	.043	.049
	N	71	71	71	71
Chatbots save a tremendous amount of time	Correlation Coefficient	.509**	.538**	.482**	.505**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001
	N	71	71	71	71
Communication with a chatbot service agent is accurate and complete	Correlation Coefficient	.463**	.449**	.334**	.293*
	Sig. (2-tailed)	<.001	<.001	.004	.013
	N	71	71	71	71

Appendix 15: Correlation between perceptions of the chatbot communication quality and customer-brand engagement. (n=71)

		On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:				
On a scale 1-5 (1= strongly disagree, 5=strongly agree) how much do you agree with the following statements based on your previous chatbot experience with the brands you mentioned in Question 5:		I feel enthusiastic about the brand	Brand inspires me	I say positive things about brand to other people	I like to continue using a brand	Time flies when I interact with the brand
I can rely on chatbots' ability to outperform human beings in the role of human customer service	Correlation Coefficient	.230	.332**	.279*	.217	.425**
	Sig. (2-tailed)	.053	.005	.019	.069	<.001
	N	71	71	71	71	71
I am scared that chatbots could steal my personal data and violate my privacy	Correlation Coefficient	.166	.217	.031	.117	.229
	Sig. (2-tailed)	.166	.069	.795	.333	.055
	N	71	71	71	71	71
It is easy to find what I want by using chatbots	Correlation Coefficient	.319**	.215	.179	.245*	.373**
	Sig. (2-tailed)	.007	.071	.135	.039	.001
	N	71	71	71	71	71

Chatbots are easy to use	Correlation Coefficient	.139	.142	.121	.324**	.281*
	Sig. (2-tailed)	.248	.238	.316	.006	.017
	N	71	71	71	71	71
Using the chatbot is more efficient than other forms of communication	Correlation Coefficient	.058	.251*	.157	.224	.214
	Sig. (2-tailed)	.631	.035	.190	.061	.073
	N	71	71	71	71	71
Chatbots save a tremendous amount of time	Correlation Coefficient	.459**	.338**	.403**	.501**	.384**
	Sig. (2-tailed)	<.001	.004	<.001	<.001	<.001
	N	71	71	71	71	71
Communication with a chatbot service agent is accurate and complete	Correlation Coefficient	.355**	.339**	.246*	.381**	.348**
	Sig. (2-tailed)	.002	.004	.039	.001	.003
	N	71	71	71	71	71