



Vaasan yliopisto
UNIVERSITY OF VAASA

Fowzia Khan Suraiya; Summia Rashid

**Consumer Attitudes toward Retail Chatbots based
on Anthropomorphic Attributes: A Finland–
Bangladesh Comparison**

School of Marketing and Communication
Master's thesis in International Business

Vaasa 2026

UNIVERSITY OF VAASA**School of Marketing and Communication****Authors:** Fowzia Khan Suraiya and Summia Rashid**Title of the Thesis:** Consumer Attitudes toward Retail Chatbots based on

Anthropomorphic Attributes: A Finland–Bangladesh Comparison

Degree: Master of Science in Economics and Business Administration**Programme:** International Business**Supervisor:** Minnie Kontkanen**Year:** 2026**Pages:** 91

ABSTRACT:

The aim of this thesis is to evaluate the effects of anthropomorphic attributes towards retail chatbots on consumers' attitudes in two cultural contexts: Finland and Bangladesh. While AI is being integrated more and more into digital interactions to make them more human, the research on the impact of cultural background in users' understanding and reacting to these features is still limited. The study is a comparative qualitative research design with the three-factor theory of anthropomorphism. The data collection was based on semi-structured online interviews with six participants (three from Finland and three from Bangladesh) with experience in retail chatbots. The study used two dialogue-based chatbot simulations using ideas from AI. The two chatbots had different interaction styles, one of them was warm and empathetic; the other was direct and professional. Both chatbots were shown to the participants, and they expressed their emotions and ideas about them. They discussed which chatbot they preferred and why. In addition, they described how they would like chatbots to behave in the future. Then the data was analyzed using thematic analysis.

The findings show that the cultural background has a significant impact on the user's reaction to anthropomorphic attributes of the chatbots. The Finnish participants preferred clear, efficient and professional communication. They sometimes considered very emotional language unnatural or inappropriate. For them, trust was largely dependent on the ability of the chatbot to resolve issues in a proper and efficient manner. The people from Bangladesh liked the warm, caring and polite communication. They perceived these features as being caring, respectful, and valued. Trust was built through making a relationship and by making them feel important. Both groups valued responsiveness, although Finns associated it with speed and competence, and the Bangladeshis associated it with attentiveness and care.

The results also indicate that the participants were not only indifferent to one set of chatbot styles. A flexible or hybrid chatbot is a desired option for many of the participants. Empathic and human identity cues like the use of a name were preferred by the participants from Bangladesh, whereas the participants from Finland preferred a chatbot with a human-like personality who can adapt to the situation by adjusting the communication style, depending on the need for efficiency or empathy.

Overall, the study explored that there is no single style to be used when designing a chatbot. Rather, chatbots should be flexible and adapt to user needs and context. The results can be used in cross-cultural human-AI interaction studies and provide valuable insights for developing more effective retail chatbots.

KEYWORDS: Anthropomorphism, chatbots, consumer attitudes, cross-cultural comparison, three-factor theory of anthropomorphism, qualitative research, thematic analysis

Contents

1	Introduction	6
1.1	Background of the Study	6
1.2	Aims, Research Question, Objectives and Delimitations	10
2	Literature Review	13
2.1	Anthropomorphism Attributes	13
2.2	The Three-Factor Theory of Anthropomorphism	17
2.3	Consumer Attitudes toward Anthropomorphic Retail Chatbot	20
2.4	Cultural Perspective of Finland and Bangladesh	24
2.4.1	The Finnish Cultural Context	25
2.4.2	The Bangladeshi Cultural Context	27
2.5	Summary of Literature Review and Conceptual Framework	28
3	Methodology	32
3.1	Research Design	32
3.2	Sampling Strategy	33
3.3	Data Collection Methods	35
3.3.1	Semi-Structured Interviews	36
3.3.2	Chatbot Simulation (2 chatbot dialogues)	38
3.4	Data Analysis	39
3.5	Trustworthiness and Rigor	42
3.6	Ethical Considerations	44
4	Findings and Analysis: Consumer Attitudes toward Anthropomorphic Retail Chatbots in Finland and Bangladesh	46
4.1	Analysis of Bangladeshi (BD) Participants Attitudes toward Chatbots	47
4.2	Analysis of Finnish (FI) Participants Attitudes toward Chatbots	49
4.3	Cross-Cultural Comparison between Bangladesh and Finland	51
5	Discussion and Conclusion	55
5.1	Summary of the Findings of the Study	55

5.2 Theoretical Contribution	61
5.3 Managerial Implications	63
5.4 Limitations and Future Research	66
References	68
Appendices	82
Appendix 1 Chatbot Simulation Dialogue 1	82
Appendix 2 Chatbot Simulation Dialogue 2	84
Appendix 3 Interview Guide	86
Appendix 4 Use of AI	91

Figures

Figure 1. Conceptual model of anthropomorphism attributes, consumer attitudes, and cultural context.	30
Figure 2. Thematic map of coding and theme development process.	41
Figure 3. Adapted Theoretical Framework: Bangladesh	59
Figure 4. Adapted Theoretical Framework: Finland	60

Tables

Table 1: Summary of Consumer Attitudes Toward Anthropomorphic Chatbots.	24
Table 2: An overview of interview participants.	35

1 Introduction

This chapter introduces the research in a formal manner by establishing the background of the study, the gap in the existing literature, defining the research question and objectives, and the study's position in the broader field of academic literature. We begin our introduction of the research by providing a general overview of the retail chatbot phenomenon and the increasing role it is playing in the types of interactions between consumers and businesses (Luo et al., 2019, p. 939; Sheehan et al., 2020, pp. 14–15). Following this, we develop why we have selected anthropomorphic attributes and how they affect, how consumers perceive retail chatbots across different cultural contexts (Araujo, 2018, p. 184; Epley et al., 2007, p. 865). Finally, this chapter provides the groundwork for subsequent literature review and empirical research design.

1.1 Background of the Study

Artificial Intelligence (AI) is dramatically transforming business and the way that customers interact with organizations as well as the nature of the relationship between the organization and customer through various forms of digital technology. Over the past few years, AI-based tools, especially chatbots, have changed how organizations communicate with customers and how customers experience digital interactions in general (Sheehan et al., 2020, p. 15; Luo et al., 2019, p. 939). A chatbot is an application or tool that uses Natural Language Processing (NLP) and machine learning to simulate a conversation with a human being. Chatbots can answer questions, offer product recommendations and provide support for customers who have complaints about products or services, often faster and with greater accuracy than human customer service representatives (Sheehan et al., 2020; Luo et al., 2019). The reason that chatbots are used so extensively by organizations on websites, retail

platforms, and social media is that they are available 24 hours a day, seven days a week.

Chatbots have many benefits in terms of practicality. They provide an organization with the ability to interact with many customers at one time and respond quickly, reducing wait times for customer service and helping organizations reduce the amount of money spent on employee hours. Organizations also find ways to increase customer satisfaction using chatbots by providing immediate customer support and creating a sense of personalized interaction (Gentsch, 2022). As organizations continue to use more chatbots, customers will begin to expect more than just fast responses from the chatbots. Customers want chatbots that will understand their needs and create a sense of empathy and enjoyment. If a customer feels that the chatbot understands them, they may be willing to build confidence with the brand and enjoy the experience. Anthropomorphism, a way of giving human-like characteristics to non-human agents, is particularly important when it comes to how customers react to chatbots (Epley et al., 2007).

Anthropomorphism plays a key role in how humans understand and respond to artificial intelligence (AI) systems. On the other hand, anthropomorphism refers to the fact that humans behave as though machines possess any human-like traits, including feelings or thought, or will. Users usually find it easier to connect and talk to chatbots when they are modeled to sound or look more human (Araujo, 2018). Design strategies can be followed to humanize machines, such as making them sound friendly and using emotions, avatars, facial expressions, or gestures (Chen et al., 2024). As an example, a chatbot welcoming a customer by name, using polite phrases, and showing sympathy to the customer in case of a complaint might lead to a more personalized and satisfying experience (Li et al., 2024).

Epley et al., (2007, pp. 866–868) stated anthropomorphism in terms of Three-Factor theory, proposing that people anthropomorphize non-human agents for sociality (need

for social connectedness), effectance (need to understand and predict action), and elicited agent knowledge (cognitive availability of human schemata). These factors vary between people and cultures, so anthropomorphic responses to AI systems are culturally relative.

In an increasing number of studies, researchers have begun examining the impact of anthropomorphism and other design strategy types on user experiences. Some studies examine visible aspects of anthropomorphism, such as human-faced avatars (Chen et al., 2024), while others focus on verbal and conversational aspects of anthropomorphism, such as emotive expression, or casual tone (Breazeal., 2003). Other researchers have discussed how anthropomorphism affects trust in chatbots, social presence, and disclosure of personal information with chatbots (Araujo, 2018; Chen et al., 2024). Comprehensively, the majority of the initial discoveries indicate that the more human-like the chatbots become to the user, the more chances there are of the users developing a perception that the chatbots are trustworthy and interesting to the user.

There are instances where the connection between anthropomorphism and user experience is ambiguous. Some studies show that moderate amounts of human-like characteristics in a product may result in higher levels of customer satisfaction; however, excessive human-like qualities could create feelings of unease or distrust by users (MacDorman & Ishiguro, 2006), referred to as "the uncanny valley." The uncanny valley is the experience of being uneasy when a technological product is too near-but-not-quite-looking like humans. A feeling of uneasiness could be felt when interacting with a chatbot due to its eeriness or unnaturalness.

Another key limitation of existing research is that it incorporates very narrow contexts, typically Western cultures. Limited contexts reduce our perception of how culture affects user reaction to anthropomorphic design (Folk et al., 2025). For example, how people imagine politeness, trust, and feelings in response to technology is culture

dependent. For instance, cultural context influences the notions of politeness, trust and expression of emotions as reactions to technology (Hofstede, 2011; Folk et al. 2025). Studies show that cultural differences impact the user's expectations from social chatbots such as preferred interaction modes and anthropomorphic level (Folk et al., 2025). In other context, where the efficiency of the services are emphasized, users appreciate their usability, clarity, and functionality, such as in Finland (Weurlander, 2023). However, the perception of the chatbot's interactions may be more positive in more relation-oriented contexts like Bangladesh, where social presence and relational communication cues (Emon et al., 2024; Azam et al., 2021) are incorporated. These cultural differences suggest the need for cross-cultural studies comparing how human-like attributes of chatbots would be perceived and emotionally responded to by users across different cultures (Luo et al., 2019).

Additionally, there is still a limitation about how different anthropomorphism factors function together. A large number of previous studies have concentrated on a specific aspect, for example, visual design and/or the tone of a voice, and not considered how the combination of all three anthropomorphism aspects: the visual, verbal, and behavioral attributes, contributes to creating an overall perception of human-like qualities (Chen et al., 2024)., Thus, this has created a lack of research-based information related to the user's overall impression of chatbot personality and social intelligence. Furthermore, researchers are currently interested in the psychological mechanisms that lead to users' perceptions of AI systems, for example, when users believe the AI system has intentions, is empathetic or authentic (Epley et al., 2007).

It is valuable for companies to know what it is for a company to have "emotional boundaries" and culturally appropriate "expectations" for how a company will interact with its consumers, in terms of technology use. More companies are utilizing AI-based (AI) chatbots as a way of building relationships with consumers, and expanding their marketing strategy (Gentsch, 2022; Sheehan et al., 2020). The design of a chatbot (personality, communication style, tone), will directly impact how customers perceive

the entire company (i.e. if the company has a good reputation or not) therefore developing chatbots which provide both efficiency and emotional intelligence will increase customer satisfaction and loyalty to the company.

While chatbots have been a powerful new tool for consumer interaction in today's retail, their success depends greatly upon the extent that consumers view them as having a human-like quality. The literature has indicated that anthropomorphized (human-like) designs enhance more engagement, perceived credibility, and eventually more positive user experience. However, more research needs to be conducted to explore how culture, personality cues, and communication style individually impact user experience and impressions about a chatbot. This research will fill such research gaps by investigating the way consumers in various cultures react to varying degrees of human-likeness in a chatbot and how the reaction influences users' impressions about the chatbot in terms of trust, comfort, and overall experience. As technology continues to evolve regarding artificial intelligence, awareness of the variables outlined above can be the foundation for the creation of AI systems that are technologically sophisticated as well as emotionally and culturally sensitive in the future.

1.2 Aims, Research Question, Objectives and Delimitations

The purpose of this dissertation is to provide a better understanding of the extent to which anthropomorphic features of retail chatbots impact consumer perceptions in varying cultural contexts. The study includes two countries with distinct cultural values and consumer behaviors in Finland and Bangladesh and compares their response to anthropomorphic characteristics of retail chatbots. Although prior research has shown that anthropomorphism may be an influential factor on consumer trust, satisfaction and participation in AI-technology interaction (Araujo, 2018, p. 185; Sheehan, Jin, & Gottlieb, 2020, p. 18), the research that exists is fragmented and primarily based on studies of within-market comparisons (Folk et al., 2025, p. 236). Therefore, this

research will seek to determine whether and to what degree consumers from technologically and culturally diverse societies respond differently to anthropomorphic stimuli or if similar psychological mechanisms are utilized across different situations, thus comparing cultural contingency versus universality of anthropomorphic effects on retail chatbots.

In this research the primary objective is to provide an in-depth understanding of how human-like design characteristics in chatbots (empathetic tone, sense of humour, responsiveness, or presence of an avatar) influence consumer attitudes toward the interaction of retail chatbots. This research is bound by theory and is geographically limited. A sample of two groups of consumers from Finland and Bangladesh has been used to collect empirical data; these two groups are chosen because they have differing orientations regarding communication and relationships.

Only retail chatbots conversational AI interfaces that support customer service, recommend products, and assist with transactions are addressed in this research; and conversational AI interfaces which serve purposes other than retail (e.g., Alexa, Siri) are excluded. Only consumer attitudes and perceptions (i.e. trust, perceived social presence, and satisfaction) and not short-term behavioural impacts (i.e. purchase frequency and/or revenue) are considered. Based on these delimitations, the following research question forms the basis of this thesis:

How do anthropomorphic attributes influence consumer attitudes toward retail chatbots in Finland and Bangladesh?

To address this research question, the study is divided into three main objectives:

1. To identify and evaluate the key elements of anthropomorphic attributes using the Three-Factor Theory of Anthropomorphism.
2. To explore consumers' differing attitudes toward anthropomorphic attributes of retail chatbot.

3. To compare similarities and differences in consumer attitudes toward anthropomorphic chatbots between Finland and Bangladesh.

While this research compares two cultural environments that are substantially different, the research does not aim to provide statistical data or generalizations for all populations, rather the goal is to create detailed contextual data regarding how consumer interpretations of cultural values (relational norms) affect perceptions of human-like characteristics in chatbots. The study's objective is to develop a culturally informed understanding of trust, satisfaction and engagement within human-AI interactions by comparing how consumers in Finland (where there is a value placed upon precision, individuality and efficiency) and Bangladesh (where there is a greater emphasis on warmth, empathy and social interaction), view the attribute of anthropomorphism.

2 Literature Review

The literature review establishes the theoretical foundation of the study in the context of anthropomorphism, consumer attitude, and cultural context. The chapter begins by introducing what anthropomorphism is and describes its main attributes that make digital agents appear more human-like and describes the three-factor theory of anthropomorphism (Epley et al., 2007; Araujo, 2018). It then explains how these traits have been applied in retail chatbot design to influence customer attitudes and experience (Sheehan, Jin, & Gottlieb, 2020; Følstad & Skjuve, 2019). Finally, it elaborates on this by giving a cross-cultural view where Finland and Bangladesh are compared to explain how a national context influences the perception of anthropomorphic cues. Together, the chapters establish the conceptual foundation for the empirical examination of the impact of anthropomorphic attributes on consumer reactions in retail chatbot considering the cultural perspective.

2.1 Anthropomorphism Attributes

The anthropomorphism concept refers to the human tendency to attribute human-like qualities, intentions, or consciousness to non-human objects and agents (Epley et al., 2007, pp. 864–865). The human tendency to describe anthropomorphic qualities is not random, but rather a systematic tendency influenced by cognitive schemas, motivational needs, and cultural norms (Waytz et al., 2010, pp. 219–220). Guthrie (1993, pp. 39–41) claims that anthropomorphism is a fundamental interpretive strategy in reading the non-human world in terms of popular and visible human features; we minimize uncertainty and render the broader environment predictable.

While anthropomorphism can happen in a variety of situations from seeing human faces in clouds to perceiving intention in animals or machines, there is general agreement among scholars that to perceive anthropomorphism, certain qualities must

be perceived as human-like (Epley et al., 2007). Commonly viewed categorically considered properties include visual properties, verbal/linguistic signifiers, identity cues, and behavioral characteristics (Epley et al., 2007, p. 868; Bartneck et al., 2009, p. 74; Nass & Moon, 2000, p. 82). Each of these four characters has been studied extensively in the literature, but researchers use clear distinctions among four qualities differently, leading to confusions and perhaps disagreements about qualities and/or their generalistic value (Waytz et al., 2010, p. 219; Go & Sundar, 2019, p. 305).

The visual appearance is probably the most direct and powerful attribute of anthropomorphic perception. Humans are evolutionarily inclined to detect human forms from the existence of human-like features, especially faces and eyes, even in abstract or minimal representations (Bruce & Young, 2012). Go and Sundar (2019, p. 306) state that highly anthropomorphic visual cues, such as a human figure, enhance the perception of another person in interaction as compared to low anthropomorphic features like a chat bubble since the image of a human being already implies the presence of a social activity.

The role of visual cues has always been found out in the studies of human-robot interaction. For example, Gong (2008, p. 1496) found that people rated anthropomorphic robots with a face, speech, or gestures to be more socially present and intentional than a purely mechanical robot. Eysel and Hegel (2012, p. 2213) discovered that even simple facial signals in robots (e.g., two eyes) facilitated anthropomorphism, and aroused gender stereotyping, and this is indicative that visual resemblance relies on social scripts. In addition, the quality and the extent of visual realism matter. Duffy (2003, pp. 177–179) emphasized that both embodiment and physical design choices strongly influence whether or not people treat non-human agents as social partners. MacDorman and Ishiguro (2006, pp. 301–302) extended this argument to hyper-realistic androids as being too realistic, generating eeriness, while more moderately anthropomorphic designs promote positive engagement. Thus, the visual features need to be simple because too abstract may be disregarded, while too

realistic, or lifelike may induce disquietude, or eeriness. It describes that there should be a fine balance as to the amount of realism that the designers should use. A design can be so simple that it does not attract the attention and involvement of the user. Conversely, when the look of a character is too realistic and human, uncomfortable or creepy will result, and less positive interaction will occur.

In addition, not only the facial feature but also other embodied/gestural cues matter as well. Breazeal (2003, pp. 167–169) demonstrated in her work with sociable robots, that gestures, postures, and expressive movements conveyed intent and made the robot more lifelike. Hegel et al. (2008) confirmed the previous findings, showing that minor non-verbal hints (e.g., nods of the questing robot or the robot's visual gaze) offered the user more humanness, thus greater engagement. This serves to show that anthropomorphism is not merely visual representations but rather human-replicated behavior, and forms of expression that mimic human personality.

Language and communication are articulated as anchors to the anthropomorphism process; however, the mechanism operates differently than visual factors. Visual factors, such as a human-like face or structure, can be an immediate pathway, perceptually, to ascribing humanness Zlotowski et al. (2015), but verbal and linguistic factors evoke anthropomorphism, in fact, through a more complex cognitive process that originates from social interaction and conversation discourse. Humans engage with those entities that conform to conversational norms as intentional and social partners, even when they know they are interacting with something nonhuman (Nass & Moon, 2000, p. 82). This is likely a result of the depth of social script that exists in human communication, as that entity produces language in the manner of human conversational turns. Therefore, social schemata concerning interpersonal interaction are activated.

Another dimension of interaction typically examined in research on chatbots is linguistic style. This affects users' judgments of warmth, competence, and social

presence of the agent. Such aspects of linguistic style as humor, empathy, and informality have been proved to influence user experience and satisfaction. Shams et al. (2024) established this impact in an experiment where informal chatbots presented humorously and in a conversational manner could enhance satisfaction in service recovery interactions and formality undermined interaction in a service recovery context. Toader et al. (2020) also found that timely and affectively sensitive language responses create trust in users, even in cases of mistakes in answer, by the chat-bot. Overall, the results thus far show that language strategies conveying empathy, humor, and social warmth increase social presence and intimacy, and thereby enhance users' perceptions of anthropomorphism, in chat-bots.

Apart from labels and language, identity cues represent a primary third group of triggers of anthropomorphism (Epley et al., 2007, p. 871). Identity cues shape features or attach identities to non-human agents as socially unique entities with identifiable roles, personality traits, or group membership that may be based on innate human social taxonomies. Therefore, features like labeling (e.g., "Samantha"), gender, or social roles allow individuals to fall back on a socially human-like taxonomy requiring expectations and logic based on reference to the category (Seeger, Pfeiffer, & Heinzl, 2021). Identity cues fulfill the needs of individuals by supplying a framework for making sense of the agent's "character" or "type" allowing its actions to be more predictable and relatable. For example, a robot labelled as "The Assistant" or a human, a robot with a masculine voice will easily frame it in the taxonomy of a human gender, and establish personality features expected actions (Nass & Moon, 2000). This essential process in types exists in human-human interaction as creating the identity refers to an interaction design strategy, to provide confidence, and promote natural interactions (Fink, 2012).

Although visual similarities, linguistic signatures, and identity clues are significant messages of humanness, behavioral cues are usually the strongest to maintain anthropomorphism. When non-human beings exhibit behavioral sequences that

resemble human social behavior, including taking turns, empathy, or adaptive learning, people are more likely to attribute them with consciousness, motives, or personalities (Waytz, Cacioppo, & Epley, 2010, pp. 219–220). One of the main responsive triggers for anthropomorphism is contingent responsiveness.

Significant behavior is expressiveness and emotional expression. Breazeal (2003, pp. 167–169) found that expressive robots that express emotion through a combination of body movements and/or gaze, vocal tone (sometimes called affect), also produced significantly strong perceptions of sociality and empathy. According to Parmar et al. (2024), robots exhibiting non-verbal signals made the participants approve the conclusions that they were more interested and human in their reactions. These nuances of behavior ultimately reflect attention and intentionality, justifying anthropomorphic attribution.

Furthermore, emotional behaviours also have a very powerful role. Bickmore and Cassell (2001, pp. 395–396) found that relational agents who later apologized for the negative experience, inquired further about the situation or offered encouragement, were socially trusted and loyal from their end user like humans. This suggests that moral teaching and emotional behaviors have bonds with anthropomorphism.

2.2 The Three-Factor Theory of Anthropomorphism

Anthropomorphism, the attribution of human-like traits, intentions, or emotions to nonhuman entities, is not random but rather a structured cognitive process. To clarify the mechanism, Epley et al. (2007, pp. 864–865) presented the Three-Factor Theory of Anthropomorphism, which has become a key theoretical and empirical framework in the studies of psychology, human-robot interaction, and human-AI. The theory has three psychological factors Elicited Agent Knowledge (EAK), Effectance Motivation, and

Sociality Motivation that both overlap and work together to predict the probability and degree of anthropomorphic appraisal.

The first component is Elicited Agent Knowledge (EAK), which is the cognitive basis for how humans use knowledge about humans to make meaning from non-human agents. Human thought is developed from a rich, easily accessible source of knowledge about human behavior, intentions, and states of mind. Because this framework is chronically accessible and often elaborate, humans will default to using this agent knowledge, even if they know at a basic cognitive level that the agent is not human (Epley et al., 2007, pp. 865-867).

Since humans have essentially far greater exposure to understanding humans in an outside context, say we are interpreting other species or potentially machines or inanimate things], the knowledge mechanisms attempt to draw most heavily on the knowledge of persons (Waytz, Cacioppo, & Epley, 2010, pp. 219–220). Some research has confirmed that accessibility of human schemas, such as technology and media, can produce anthropomorphism. For instance, Nass and Moon (2000, p. 82) showed that people viewed a computer as a social actor when it used polite language using relational norms like reciprocity and respect.

Effectance Motivation, the second predictor of anthropomorphism in (Epley et al., 2007, pp. 867–869) Three-Factor Theory, is the human inclination to make the world more orderly and within our control. Effectance at its core involves the need to eliminate uncertainty and introduce structure into an often ambiguous and complicated space. Anthropomorphism offers a robust means of achieving this motivation because using human terms to explain non-human agents makes them less baffling, easier to predict, and easier to try to manipulate. For instance, when something goes wrong in a chat bot or robot's behavior, people will rationalize it by inferring that it “forgot,” “misunderstood” something, or “consciously chose” to act otherwise. The human-centered reason for the mistake allows people to create a

sense of control and predictability amidst the chaos of technology. Kiesler and Hinds (2004) demonstrated this effect empirically, indicating that errors lead people to anthropomorphise machines. When an error occurs that cannot be explained in any other way, it is a psychologically satisfying explanation to credit the machine with some human-like desire or limitation, since this explains what is otherwise incomprehensible.

The third antecedent in the Three-Factor Theory of Anthropomorphism is Sociality Motivation. Sociality motivation refers to the peoples' fundamental need to belong and bond with others. Humans are social by nature, and the lack of deep social relationships generally results in feelings of loneliness and disconnection thus psychological distress (Baumeister & Leary, 1995, pp. 497–499). In this respect, anthropomorphism serves as a compensatory pathway; humans ascribe human traits to entities that are not human to generate experiences of companionship, community, and emotional safety (Epley et al., 2007, pp. 869–871).

When social needs are not met, usually anthropomorphism becomes a replacement mechanism in lieu of real human interactions. Epley et al. (2008, pp. 144–146) determined that lonely participants were more likely to anthropomorphize their devices, giving them intentionality and emotionality. Eyssel and Reich (2013) found that individuals that were socially isolated more strongly bonded with anthropomorphic robots, considering them quasi-social partners.

Waytz et al. (2010, pp. 223–224) observed that humans deprived of social contact were more likely to anthropomorphize their experiences and apply anthropomorphism to non-sentients. Again, Chen, Zhou, and Bryant (2017, pp. 119–120) shared similar results in those persons who self-reported higher social isolation anthropomorphized virtual agents and gave them human-like emotions that created an empathetic partner. Overall, these findings suggest that anthropomorphism is not just cognitively driven but is fundamentally emotionally driven out of social needs to unmet.

Research has now shown the compensatory role anthropomorphism plays following the issue of social exclusion. Powers and Kiesler (2006, pp.148–149) report similar acts in human-robot interactions where socially excluded participants demonstrated forced relational bonds as opposed to included, non-excluded social contexts.

2.3 Consumer Attitudes toward Anthropomorphic Retail Chabot

Retail chatbots are an example of text- or voice-based AI designed to converse with consumers about their purchases and provide recommendations based on products and also solving problems of consumer products. As stated in Sheehan et al. (2020, pp. 14-15), retail chatbots were designed to be able to create a personalized, contextualized and conversational experience using natural language processing and machine learning (Luo et al., 2019, p. 939; Sheehan et al., 2020, p. 15).

Anthropomorphism is important in creating positive consumer attitudes during the interaction process between the chatbot and the consumer. Research has indicated that certain features of the chatbot design create positive (Araujo, 2018, pp. 184–185; Song et al., 2023, pp. 3603–3606) and negative (Song et al., 2023, pp. 3605–3606) and mixed (Araujo, 2018, pp. 184–185; Song et al., 2023, pp. 3603–3606) reactions from the user.

The next section will include the primary attitudinal outcomes of the literature regarding consumer attitudes toward anthropomorphic retail chatbots divided into three categories: (1) positive; (2) negative; and (3) mixed (Van Doorn et al., 2017, pp. 46–52).

When consumers have positive attitudes toward retail chatbots, it is typically due to anthropomorphic cues that promote social presence, trust, satisfaction, and enjoyment in online interactions. Anthropomorphism creates a sense of interactivity

and a human-like quality to chatbots resulting in positive emotional and cognitive evaluations (Araujo, 2018, pp. 184–185; Song et al., 2023, pp. 3603–3606). As a result, designers can develop chatbot interactions that are more satisfying socially and more human-like, to improve the overall user experience (Van Doorn et al., 2017, pp. 46–52). Customers also tend to respond positively to chatbots that are perceived as having social presence and can establish an interpersonal connection (Van Doorn et al., 2017, pp. 46–52). Furthermore, Følstad & Skjuve (2019, pp. 1-9) noted that customers preferred customer-service chatbots that report their status explicitly and clearly which promotes greater user satisfaction and engagement. Holzwarth et al. (2006, p. 25) demonstrated how anthropomorphic virtual agents could increase consumer trust and satisfaction with purchasing decisions, and Nass & Moon (2000, p. 83) demonstrated that humans exhibit social norm behavior when interacting with computers and this produces a positive affective state. Together, these studies indicate that anthropomorphic chatbots that are well designed can produce enjoyment, trust, and social presence, which are the major factors contributing to positive consumer attitudes.

Anthropomorphic, affective responses of AI systems can provide users with a way to forgive a limited number of errors and issues within a system. Cao et al. (2024) discovered that users will tend to attribute errors to the short-term nature of the issue and not the long-term one, i.e. lack of competence, when receiving an error message that is framed in an anthropomorphic and empathetic manner. As Schuetzler et al. (2020, p. 878) describe, natural-sounding and human-like interaction has the effect of producing the impression of genuineness and instills of trust in a system. Experimental works have also proven that the incorporation of social and visual cues to chatbots and the development of chatbot languages that express emotions improve both perceived competence and perceived warmth for professional use (Go & Sundar, 2019, pp. 314-315; Sheehan et al., 2020, p. 21). Nguyen et al. (2023, p. 10) also found that chatbot design with expressive language and emojis enhanced perceived competence and warmth, especially in low credibility brand scenarios. Anthropomorphism can also

enhance trust, satisfaction, engagement and loyalty as positive attitudinal effects when applied at appropriate and moderate levels proportional to the capability of the chatbot (Sheehan et al., 2020, p. 21).

However, if an AI system has anthropomorphic cues above its capability, then users will start to feel fear or distrust towards the interface. Luger and Sellen (2016, pp. 5289–5291) established that inconsistency between coherent answers generated by a benevolent chatbot disrespects expectation and enrages users. Mori (2012, pp. 99–100) initially coined the term uncanny valley as the feeling of uneasiness people experience upon encountering objects close to being human. Gray and Wegner (2012, p. 125) further developed this definition to characterize behavioral manifestations of this phenomenon. Empirical evidence documented by Song et al. (2023, pp. 3605–3606) confirms that over-anthropomorphism increases the privacy concerns of users and reduces their authenticity perception to achieve lower acceptance intentions.

Despite anthropomorphic cues having been proven to positively increase social presence and trustworthiness, they are likely to evoke unintended psychological responses if applied in manipulative or controlling manners. Adam et al. (2021, p. 428) found that highly "nice" or influential chatbot behavior undermines users' perceptions of autonomy and induces psychological reactance and resistance. Moreover, Sun et al. (2025, pp. 10561–10578) found that there is an inverted U-shaped relationship between the degree of human-likeness of AIs to users' privacy issues and usage intentions. Acceptance occurs at mid-levels of human-likeness, yet high human-likeness is uncomfortable and brings up more privacy concerns. Users also put more burden on human-like chatbots when there exists service failure (Weiner, 1985, p. 561; Cao et al., 2024, p. 6) and hence experience more negative emotional responses. Overall, these findings indicate that over or inconsistent anthropomorphism poses a threat both to trust and integrity and is associated with reactance, discomfort and a rise in privacy concerns all of which are characteristic backfire effects of anthropomorphic design.

With these findings regarding the counterbalancing effects of positive and negative anthropomorphic appraisals, however, other studies emphasize that both appraisals are additive. According to Van Doorn et al., (pp. 46-52) while emotional cues may enhance relational warmth toward the agent, recognition that the agent is firmly a nonhuman is facilitated by these same emotional cues. Similarly, Schuetzler et al. (p. 879) found that higher conversational facilities are associated with more intense feelings of humanness, but this is also associated with more intense sensitivity to conversational errors. Consumers can therefore have natural conversations with chatbots but will respond negatively to anthropomorphic agents if they fail to meet their expectations. This duality is consistent with the inverted-U relationship between consumer reaction and anthropomorphism whereby intermediate levels of humanness are optimal in appealing to consumers, but higher levels evoke unease (Gong, 2008, p. 1496). Moreover, consumer context individual differences affect ambivalence; i.e., Araujo (2018, p. 185) found that anthropomorphic framing positively affects perceived competence but negatively affects authenticity, and Chattaraman et al. (2019, p. 380) found that older consumers desire relational warmth from agents but are wary of agents being "fake." Finally, Traub et al. (2023) found that perceived humanness enhances social presence in organizational AI use but lowers accountability clarity and thereby has positive as well as negative emotional and functional outcomes.

The following is a brief table of a summary of the type of attitude (positive or negative), its matching anthropomorphic attribute, primary user consequence(s), and exemplary studies for each attribute in the literature. Clearly, empathy, humor, and politeness are linked with positive trust-related effects, while manipulative, overly friendly, or too anthropomorphic agents evoke a sense of discomfort and privacy issues. The usual response to anthropomorphic agents, which demonstrate either relational warmth and awareness of artificiality or higher awareness of errors, tends to be ambivalent or a combination of both positive and negative responses.

Table 1. Summary of Consumer Attitudes Toward Anthropomorphic Chatbots.

Attitude Type	Linked Anthropomorphic Attributes	Key Outcomes	Representative Studies
Positive	Empathy, humor, polite tone, consistent personality	Trust, satisfaction, engagement, loyalty	Følstad & Skjuve (2019, p. 382); Holzwarth et al., (2006, p. 25); Cao et al., (2024, p. 5); Go & Sundar (2019, p. 679); Sheehan et al., (2020, p. 18)
Negative	Incongruence, manipulative friendliness, over-anthropomorphism	Discomfort, distrust, reactance, privacy concern	Luger & Sellen (2016, pp. 5289–5291); Song et al., (2023, pp. 3605–3606); Adam et al., (2021, p. 428); Weiner (1985, p. 561)
Ambivalent	Emotional cues mixed with awareness of automation; heightened sensitivity to errors; contextual factors (age, workplace, framing)	Conditional trust, cautious engagement, cognitive–affective dissonance	Van Doorn et al., (2017, pp. 46–52); Schuetzler et al., (2020, p. 879); Gong (2008, p. 1496); Araujo (2018, p. 185); Chattaraman et al., (2019, p. 380); Traub et al., (2023)

2.4 Cultural Perspective of Finland and Bangladesh

Research on cross-cultural studies in Human-Computer Interaction shows that the use of anthropomorphic characteristics in chatbots does not create the same psychological responses across national cultures and therefore elicits varying levels of positive attitudes (Waytz et al., 2010; Epley et al., 2007). Two examples of the impact of national culture on both the emphasis given to those factors and the results of using anthropomorphic design for chat-bots is Finland and Bangladesh.

Cultures that emphasize relational connection and emotional expression typically view chat-bots as friendly, positive, responsive, and capable of having a relationship with them if the chat-bot expresses emotions and has a consistent persona during the chat (Nass & Moon, 2000). The presence of these characteristics creates the social presence and friendliness of the interaction and thereby increases user satisfaction, enjoyment and trust (Go & Sundar, 2019; Sheehan et al., 2020). For example, in studies where chat-bots expressed high levels of empathy, or even made a small mistake, apologized and said they were sorry, users rated the chat-bot as being more competent and trustworthy. The reason was because users perceived the mistake as temporary rather than a total failure (Cao, Li, & Jiang, 2024, p. 5). Finland and Bangladesh serve as two examples of culturally distinct societies that demonstrate how consumers interpreted the use of anthropomorphic characteristics such as warmth, empathy, personality and responsiveness and how the use of these characteristics impacted their overall attitude towards chat-bots (Sheehan et al., 2020; Aggarwal & McGill, 2007).

2.4.1 The Finnish Cultural Context

Based on data from academic research, along with cross-cultural evidence, Finns view chatbots as a means of completing tasks and finding solutions to problems versus viewing them as a form of social interaction. As stated by Weurlander (2023), users will assess an individual's ability to perform their function effectively, provide reliable information, while also being able to clearly communicate, before assessing whether the individual has displayed a level of emotionality or friendliness. In addition, according to studies conducted in Finland's retail and services sectors, users have been positive towards chatbots that are somewhat polite and professional but have demonstrated limited interest in too friendly or emotional attitudes. For example, Weurlander (2023) reported that customer dissatisfaction among Finns was created because chatbots misunderstood questions or gave irrelevant responses consequently where trust and satisfaction were lost despite there being polite or human signs of

conversation. Empirical research on anthropomorphic interfaces has shown that politeness of language, modesty in expressions of empathy, and consistent personality can lead to a greater perception of social presence and momentary approachability (Nass & Moon, 2000; Reeves & Nass, 1996), but studies show that the affective benefit of such traits is easily lost if a basis of competence is missing or deficient (Luger & Sellen, 2016; Bickmore & Cassell, 2001). Finnish users therefore are like other Northern-European samples in international research and give value to anthropomorphic cues only when they are conformed to correct but timely response: because when the “humanness” of an agent outstrips the ability to perform, attitudes pass into the realms of dissatisfaction and mistrust (Li et al., 2024, p. 2762). This pattern is consistent with psychological research showing that more blame is assigned in the perceptions of agents who are intentional, so that a fault would be more severely censured in the case of a human-like chatbot than in the case of a manifestly mechanical interface (Weiner, 1985; Waytz et al., 2010). Consequently, the following attitudinal profile is found by Finnish consumers in relation to anthropomorphic chatbots: (1) conditional trust, which depends on competence being shown, rather than warmth per se, (BMC Psychology, 2024; Li et al., 2024); (2) low tolerance for violation of expectations, anthropomorphic warmth leading to expectations which can amplify disappointment steering a chatbot away from such warmth (Luger & Sellen, 2016); (3) amplified privacy-consciousness with personal clues, or too deep intimacy, present by (Adam et al., 2021), which gives rise to the idea that in Finland, anthropomorphic attributes can only be used with caution, and alike functional benefit (e.g., alternating takings turn, clarity of instructions) else they may eat away modern impressions instead of building up positive impressions.

Finally, cultural communication norms and attitudes towards technology also help shape chatbot perceptions. Oulasvirta and Blom (2008, pp. 10–12) found Finnish consumers highly value task-solving and problem-solving when dealing with mobile applications, which aligns with their culture-biased attention to efficiency. Anthropomorphic features in chatbots can then be tolerated where these enhance

service quality, for example, friendly language in handling faults, but explicit human-like features might be perceived as unnecessary or even intrusive.

2.4.2 The Bangladeshi Cultural Context

Research from Bangladesh has shown that anthropomorphic features such as: a warm tone, polite language, and an empathetic tone influence consumers' perceptions of artificial intelligence (AI)-based products and services such as chatbots and other AI-based technology; these are seen by consumers as indicators of how attentive the product or service is to their needs and also serve as a means for creating a sense of social connection with the user (Bhuiyan, Ahmed & Jahan, 2024; Emon et al., 2024).

Emon et al. (2024), state that personalized, conversational tone and trust were the key elements noted by Bangladeshi users of F-commerce chatbots in their responses to chat conversations. Many systematic studies of anthropomorphic styles of communication reveal that empathic language, polite formulation and cues of identity (names, friendly personalities) increase warmth, social presence and consequently trust and satisfaction in markets where interpersonal warmth is a crucial retail cue (Hu & Ma, 2023). The users within the context of Bangladesh view anthropomorphic chatbots NOT merely in the context of them being tools, but rather as social interactive agents who can recognize and interpret affect judgement and reactions. Warmth and empathy are highly regarded, since these feelings engender improved trust, improved satisfaction and improved perceived enjoyment or satisfaction from use. Qualitative evidence and consumer behavior data from South Asia indicate that customization and empathetic repair, such as apologies and empathic acknowledgments, may reduce dissatisfaction and foster loyalty, even in the presence of small functional issues (Cao et al., 2024). Thus, Bangladeshi consumers tend to have the following weightings of attitude with respect to anthropomorphic chatbots: greater affective responsiveness, warmth and politeness increase satisfaction and sincerity when expressed credibly (Xu

et al., 2022); moderate error forgiveness: empathic repair and polite apologies reduce negative affect and keep intact trust after minor failures, but repeated or serious failures have detrimental effects (Cao et al., 2024), a preference for localization and identity cues. Moreover, recent studies have found that, in Bangladesh, the use of visual and identity cues is beneficial for creating an image of how consumers view AI chatbots. The inclusion of visually appealing, friendly avatars or culturally recognizable elements such as using local names on chatbots increases consumers' feelings of closeness to chatbots and that they are receptive to their concerns. Anthropomorphic design features serve as visual indicators of attention, politeness and connection to create an image of relating through relational communication behaviors identified by Bangladeshi consumers (Bhuiyan et al., 2024). Additional cross-cultural and design-focused research has validated that designers utilizing visual anthropomorphic elements, such as avatars or human faces, augment the social presence and credibility of digital systems without adversely affecting transaction efficiency or perceived service quality (Chen et al., 2024; Araujo, 2018; Luo et al., 2019). Collectively, these findings suggest that anthropomorphic chatbots can offer a combination of warm and emotional interaction with functional performance in the context of Bangladesh regarding digital consumer interactions, which suitably matched with performance invokes positive behavioral intentions.

These studies indicate cultural context to mediate interpretation of anthropomorphic traits, affecting varied consumer trust, satisfaction, and engagement across national cultures (Epley, Waytz & Cacioppo, 2007; Hofstede, 2011; Araujo, 2018).

2.5 Summary of Literature Review and Conceptual Framework

The literature review indicates that the theoretical framework for understanding consumers' views about retail chatbots is based in anthropology – specifically through the lens of the Three Factor Model of Anthropomorphism by Epley et al. (2007) which

lists four main categories of anthropomorphic characteristics that include visual, identity, verbal/linguistic, and behavioral.

Signals of visual and identity are mainly produced from Elicited Agent Knowledge (EAK), where consumers create mental representations of chatbots as humans, as having agency and capability. The verbal and behavioral signals are associated with Effectance Motivation and reduce the consumers' uncertainty when interacting with chatbots; they make interaction appear to be consistent, predictable, and human-like. Moreover, empathetic, humorous, and polite conversations with a chatbot reflect Sociality Motivation, enabling consumers to satisfy their needs for emotional connectedness and social support.

Together, these three mechanisms illustrate how anthropomorphism can produce positive attitudes toward consumers' view of the store – such as trust, satisfaction, engagement, and loyalty, as well as increased tolerance for errors. However, the literature has also demonstrated that there are both positive and negative attitudes toward anthropomorphic design of chatbots; whereas excessive or inconsistent human-like cues may result in decreased perceived levels of trustworthiness, feelings of discomfort or reduced perceived authenticity (Araujo, 2018; Luo et al., 2019; Sheehan et al., 2020). Therefore, it is necessary for designers of anthropomorphic chatbots to achieve an optimal level of emotional closeness while maintaining functional effectiveness to avoid creating either an overly idealized image of the store or excessively personalized experiences.

The study also showed that there is a cross-cultural analytical component to this study. Studies have shown that cultural environments as defined by values, communication practices, and social connections act as moderating variables in how anthropomorphized characteristics influence consumer's perception of products or services (Hofstede, 2011; Epley et al., 2007). As such, for example, Finnish consumers would likely consider chatbots based on their competency, ease, and credibility while

Bangladeshi consumers would be more inclined to consider chatbots on the basis of the degree to which they provide warmth, personalized service and empathy.

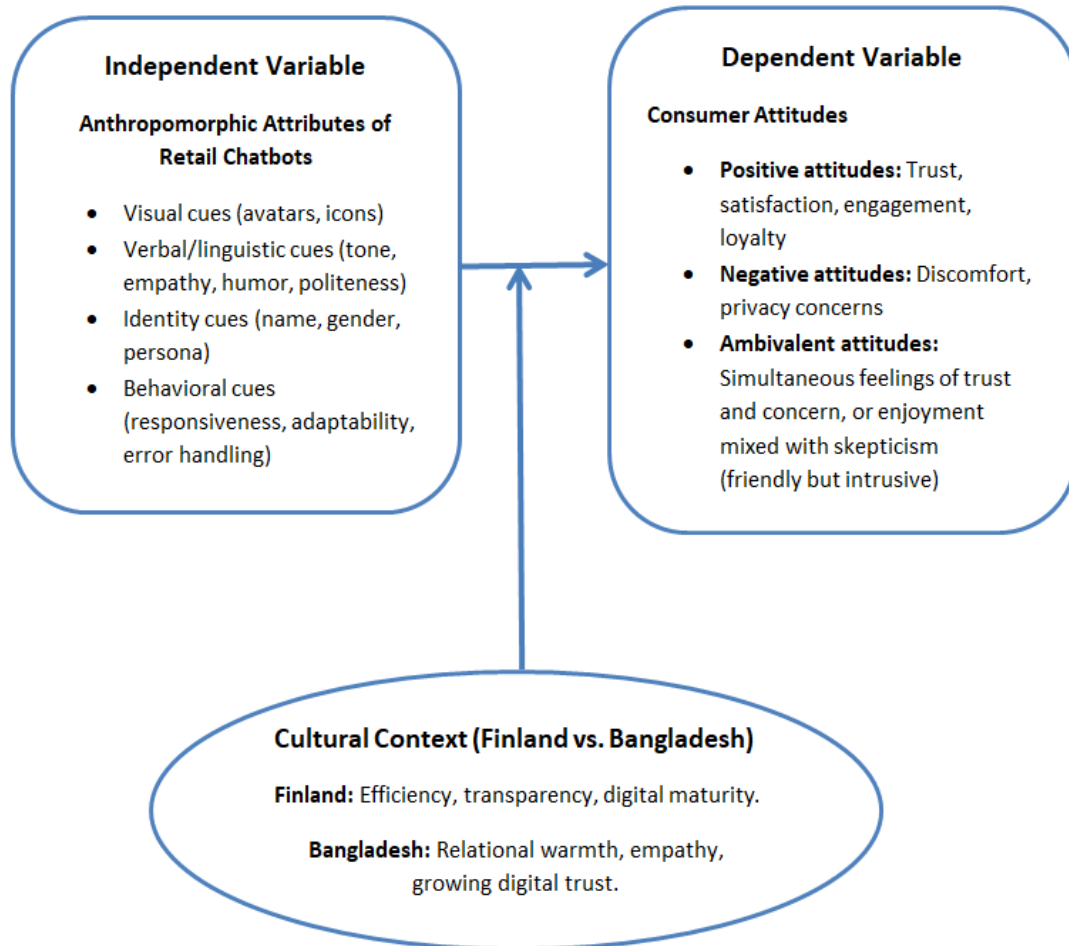


Figure 1. Conceptual model of anthropomorphism attributes, consumer attitudes, and cultural context.

In the above figure, the conceptual model illustrates that cultural context (Bangladesh vs. Finland) acts as a moderator between anthropomorphic attributes of retail chatbots (independent variable) and consumer attitudes (dependent variable). The independent variable includes visual, linguistic, identity, and behavioral information that creates impressions of human-likeness. The dependent variable includes positive attitudes (trust, satisfaction, engagement, loyalty), negative attitudes (discomfort, privacy concerns), and ambivalent attitudes (mix of trust and skepticism). Cultural

context defines the strength and direction of these relationships, pointing out the way anthropomorphism has its impact differently in various cultures. This system leads to the theoretical foundation for empirical analysis in the following chapters.

3 Methodology

In this chapter, the methodological approach that has been used in the study is presented. It describes the research design, sampling design, data collection, and data analysis approach that was adopted to explore consumers' attitude towards retail chatbots and the effects of anthropomorphic features. The chapter also covers issues of trustworthiness and rigor and discusses the ethical issues that were followed during the research process.

3.1 Research Design

As stated by Creswell and Poth (2018, p. 35) qualitative studies are based on understanding people's representations of their experiences and are generally collected through observations in real life environments; hence they represent the voices of the participants. Creswell and Poth (2018, p. 35) further state that qualitative studies are most appropriate when trying to explain why something happens or how something occurs rather than the frequency or number of occurrences. The comparative element of this qualitative study will allow for an examination of cultural differences and similarities. According to Palmberger and Gingrich (2014, pp. 94-108) comparative qualitative research studies can help researchers to understand how different cultures create and implement similar and dissimilar meanings and practices. Therefore, by comparing responses of Finland and Bangladesh, this study will illustrate how culture impacts consumers' perceptions of anthropomorphized retail chatbots.

This comparative aspect is a critical component of the research question and objectives because it allows for the examination of both similarities and differences in how consumers in Finland and Bangladesh perceive anthropomorphic characteristics in retail chatbots. This design enables the researcher to better understand how cultural norms and institutional contexts impact the role of anthropomorphism in the

formation of consumer trust, satisfaction, enjoyment, and loyalty towards a retailer, while also impacting negative or ambivalent attitudes consumers may have due to feelings of discomfort or skepticism towards the human-like behavior exhibited by the retail chatbots.

According to Epley et al. (2007), the Three-Factor Model of Anthropomorphism represents a conceptual model used to explain why humans attribute human-like qualities to non-human entities. Consequently, the research design focuses on consumer interpretation of chatbot attributes such as tone, empathy, identity cues, and responsive behavior, as these qualitative results are used as the basis for explaining how anthropomorphic attributes influence consumer attitudes in cross-cultural retail settings. Qualitative research methods are most fitting for this research project as they allow for a deeper understanding of how and why consumers view anthropomorphic retail chatbots from various cultural perspectives. In contrast to quantitative studies that focus on measuring consumers' attitudes and/or behavior toward anthropomorphic retail chatbots, qualitative research focuses on capturing participants' subjective, lived experiences, interpretations, and emotional responses when interacting with anthropomorphic chatbots in their everyday environments (Creswell & Poth, 2018). Thus, the qualitative approach is ideal for exploring complex social and cultural phenomena such as how cultural norms influence consumer perceptions of trust, satisfaction, and comfort associated with anthropomorphic chatbot interactions.

3.2 Sampling Strategy

The target population of this study consists of Finnish and Bangladeshi adult consumers who have experience with online shopping and prior interactions with retail chatbots. These previous interactions included product information requests,

help in purchase decisions, order tracking, customer service inquiries, or complaint resolution.

This study used the purposeful sampling method to choose the participants who had previous experiences in using retail chatbots. According to Palinkas et al. (2015, p. 533), purposeful sampling is a frequent method of qualitative research in the case of selection and identification of information-rich cases related to the studied phenomenon.

The aim of this study was to gain an extensive understanding of participants' opinions and attitudes with retail chatbots. The participants were recruited from personal and professional networks including friends, colleagues, and other acquaintances. Firstly, they were contacted and asked if they had any previous experience using chatbots in online shopping or any kind of customer service inquiry. If they reported having these experiences, they were approached to be part of the Interview in the study. Whoever agreed, a detailed description of the purpose of the research, the interview process, data handling procedures, privacy protection measures, and their rights as participants, was sent to them via the University email along with a consent form. After getting that mail, whoever agreed to be a part of the interview, they sent their signed consent form via the same email.

A total of six participants had been recruited, with three from each country (Finland and Bangladesh). All participants already had experience with the use of retail chatbots when shopping online. This ensures that findings come from actual experiences and feelings about anthropomorphic chatbot qualities rather than hypothetical assumptions. This sample size is likely to achieve thematic saturation (Guest, Bunce, & Johnson, 2006), in which no new themes are revealed in the data, yet still permitting important cross-cultural comparison between Finland and Bangladesh.

The interviews took a duration of 34-43 minutes based on the participants' engagement. All respondents received an anonymised identification code (e.g., FI 1 = Interviewee from Finland, BD 1 = Interviewee from Bangladesh) that was used in the analysis and quotations to guarantee confidentiality and traceability. Table 2 below gives a summary of description of the interviewees.

Table 2. An overview of interview participants.

Code	Country	Age group	Education	Profession	Frequency of Chatbot Use	Length of Interview (min)	Date of the Interview
FI 1	Finland	45-54	Master's	Educator	Monthly	43	03/06/2026
FI 2	Finland	35-44	Bachelor	Supervisor	Occasionally	38	04/06/2026
FI 3	Finland	25-34	Master's	Senior fundraiser	Monthly	40	05/06/2026
BD 1	Bangladesh	25-34	Bachelor	Student	Weekly	34	03/06/2026
BD 2	Bangladesh	35-44	Masters	Integration program	Monthly	35	04/06/2026
BD 3	Bangladesh	18-24	Bachelor	Student	Weekly/Daily	34	05/06/2026

3.3 Data Collection Methods

This chapter describes the semi-structured interview process and the chatbots simulation process conducted during the interview.

3.3.1 Semi-Structured Interviews

The main method of data collection was semi-structured interviews. This method was suitable as it gave a flexible and well-organized framework to delve into the experience of participants in much detail and at the same time it was made sure that the main themes, such as tone, empathy, communication style, human-likeness, trust, satisfaction, responsiveness, social presence, and general attitudes toward retail chatbots, were discussed in a systematic manner. According to Galleta (2013, pp. 24, 45), semi-structured interviews are open-ended like unstructured ones but guided like structured ones as the participants are free to narrate their experiences without losing their thematic direction.

The interviews were also carried out online through Zoom that enabled the participants in both Bangladesh and Finland to participate in the interviews at their comfort and safety. All the interviews were recorded as videos, so they could transcribe and analyze them later. The interview guide consisted of five sections: Background Information, First Simulation, Second Simulation, Comparison of the Simulations, Chatbot Preferences, and Previous Experiences. The Three-Factor Model of Anthropomorphism (Epley et al., 2007) and literature on consumer-chatbot interactions (Araujo, 2018; Luo et al., 2019) were used to inform the development of the interview questions.

Two chatbot simulations were presented to the participants, which helped them to interpret the interaction of the chatbots in a detailed manner as in semi-structured interviews the participants can explain their experiences and opinions in a free manner. The focus of the interview was on participants' responses to the simulations and reflect their attitudes towards the features of chatbot interactions. The first chatbot simulation represented Bangladeshi consumer interaction with chatbot in Bangladeshi cultural perspective. On the other hand, the second chatbot simulation represented Finnish consumer interaction with chatbot in Finnish cultural perspective.

For the purposes of avoiding any bias, the participants were not told which of the two was the Bangladeshi or the Finnish chatbot style during the interview and their opinion on them was given without knowing of the cultural representation of each chatbot.

The interview began with the background information where some introductory questions asked to the participant's about themselves and their shopping experience online and their relationship with retail chatbots were asked. The first part of each interview was to show two standard chatbot dialogues, interaction of chatbots, to the interviewees. These chatbots' dialogues acted as a starting point for the discussion and gave everyone something to talk about (see section 3.3.2). At this point, each interview was to show the first chatbot dialogues simulation to the interviewees and asked questions related to that dialogue simulation. The interviewees were asked to share their ideas and feelings of the dialogue. The discussion then moved to their opinions on the features of the chatbot including chatbot's tone, the chatbot's empathy, its level of human-likeness and its problem-solving capabilities.

Secondly, the second chatbot dialogue was shown to the participants. The second chatbot dialogue was posed with similar questions concerning opinions of the tone, empathy, human-likeness, and problem-solving skills of the chatbot. Then, they were asked to compare the two chatbot dialogues and discuss any similarities and differences between them. They also explain what style they preferred about the chatbots, and what made them prefer to choose the particular style.

After the discussion, the interviewees were asked to express their opinions on the impression of chatbots, such as chatbot tones, empathy, human likeness and problem-solving ability. Also discussed their prior experience with retail chatbot in online shopping and customers services. Conversely, the interviewees also mentioned their desires and expectations for future interactions with the chatbots, such as the desired features, types and styles of chatbots, and the services that they would like to interact with. Appendix 3 shows the full interview guide that was used in the study.

3.3.2 Chatbot Simulation (2 chatbot dialogues)

Two chatbot dialogue simulations were shown to every interviewee. Each simulation was a retail shopping conversation where the chatbot helped a customer who got a damaged smartphone after an online delivery. One chatbot dialogue simulation was designed by a Bangladeshi communication style, while the other was a Finnish communication style.

The generative Artificial Intelligence (AI) was used as a tool to create chatbot simulations for this study. Using AI, preliminary versions of the dialogues of the chatbot were created in response to prompts detailing the research environment, the customer service context, and the communication styles desired. The prompts asked the AI to develop a dialogue for two chatbots, both having solved the same issue, but in different ways based on the Bangladeshi and Finnish culture. The dialogues were subsequently reviewed, edited, and refined to ensure they aligned with the aims of the study, and to mimic realistic dialogues between a customer and a chatbot and enable meaningful comparison between the two dialogue styles. The final versions used during the interviews were consequently assisted by AI but were chosen and adapted specifically for research purposes. So that results would be consistent and comparable, the same two chatbot dialogue simulations were shown to all participants both in Finland and Bangladesh.

The dialogue simulations were created to have both anthropomorphic characteristics like the use of polite and friendly language, empathetic expressions, problem solving, name as well as flexibility in conversation to mimic frequent patterns of human-like chatbots. Having read through the chatbot simulation experiments, the participants provided their feedback on how they felt in relation to such chatbot experiences, in areas such as empathy, trust, similarity to human interaction, appreciation, problem-solving efficiency, among others. The script of the chatbot simulation dialogue is

provided in Appendix 1 to show the transparency and replicability of the data collection procedure.

3.4 Data Analysis

Thematic Analysis was used to analyze the data which was guided by the six-step approach to analysis proposed by Braun and Clarke (2006, pp. 87-97). The approach was suitable for investigating the effects of the anthropomorphic attributes of the Three-Factor Model of Epley et al. (2007) on consumer attitudes of Finnish and Bangladeshi interviewees, which encompasses verbal, identity, visual, and behavioral cues.

Data Analysis Process:

Familiarization: The interview transcripts were read repeatedly to have a profound insight into the experiences and opinions of the participants with the retail chatbots. This was done to determine early impressions of emotional and cognitive response during interactions.

Initial Coding: After reviewing the transcripts, an inductive coding was done by assigning meaningful segments of the transcriptions to the research objectives. This process specifically differentiated out anthropomorphic attributes (conversational tone, empathy, responsiveness, human likeness) and the attitude and emotional response of the participants (coded separately). Specific items within these categories were identified: Trust, satisfaction, comfort, and perceived reliability, and instances of frustration. These first codes were subsequently combined into broader themes like "Consumer Encounters with Key Anthropomorphic Attributes" and "Consumer Attitudes" to allow for a critical cross-cultural comparison. This thematic framework enabled the detailed analysis of the perception and reaction of the consumers in

Finland and Bangladesh to retail chatbots, as it revealed the culturally driven expectations of communication and emotional connection. The coding process was directed towards the reflections of the participants on the simulated chatbot interactions, as well as their experiences with retail chatbots, and especially how they perceive the anthropomorphic attributes affect their perception, trust, satisfaction, and comfort with the chatbots.

Theme Development: Once this initial coding had been done, the anthropomorphic feature codes, as well as the attitudinal or emotional response codes, were all revised and categorised within larger, more general, interpretive themes. Elements that were coded in the anthropomorphic feature codes included tone, empathy, responsiveness, politeness, personality, name and the type of conversations whereas the attitudinal codes considered reactions of the participants in terms of trust, satisfaction, enjoyment, frustration, discomfort, problem solving and privacy issues.

The two coding categories (initial coding and sub coding) were then combined to create analytical themes that demonstrated the correlation between chatbot features and consumer attitudes as stated in the conceptual framework of the study. Thematic patterns were also read within the two cultural spaces of Finland and Bangladesh to learn how the cultural expectations moderated the perceptions of anthropomorphic design. This coded review and code clustering process allowed to make sure that the final themes were reflective of the functional and emotional facets of chatbot-consumer interaction.

Theme Review: These themes were observed to be consistent and distinct. Another aspect of this stage was the exploration of cross-cultural differences in expressing attitudes to chatbot similar features by Finnish and Bangladeshi participants.

Definition and Labeling: Every theme was accurately outlined and labeled to capture the nature of the interpretations of the participants. The labeling procedure explicitly

related the anthropomorphism aspect with emotions and attitudes that they provoked during actual chatbot communications.

Reporting: The last phase was to present the results in the form of illustrative quotations about the interviews used to explain the results. Comparing the thematic patterns between the two cultural datasets was then used to identify universality as well as the culturally specific responses to anthropomorphic cues.

A thematic map in **Figure 2.** was developed to visualize this relationship and present how anthropomorphic features influence consumer attitudes across Finland and Bangladesh.

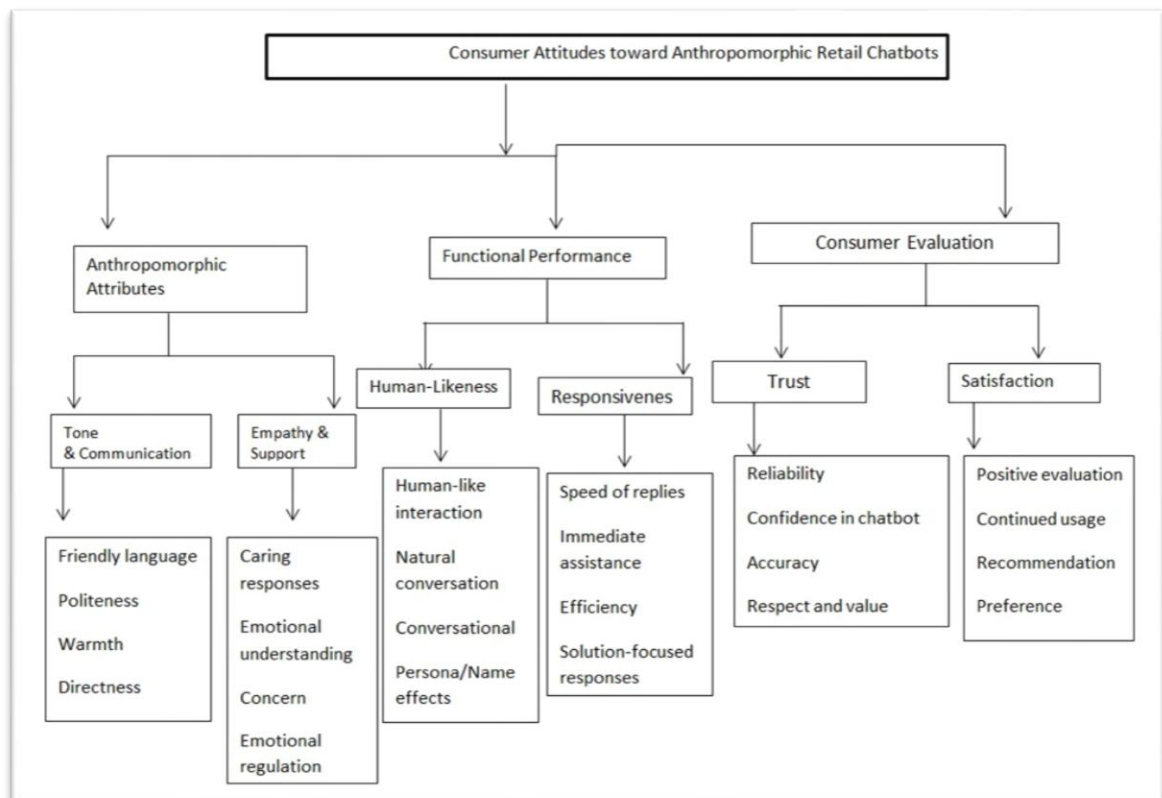


Figure 2. Thematic map of coding and theme development process.

This is a thematic map of the analytical process of coding and the creation of the higher order themes from the interview material. Initial codes of anthropomorphic attributes (tone and communication, empathy and support, human-likeness) and functional performance (responsiveness) were determined, and the codes were clustered systematically. These were then further distilled into general conceptual categories corresponding to the results of the consumers' evaluation, namely trust and satisfaction. These themes reflect consumers' perceptions and understanding of anthropomorphic characteristics of retail chatbots and their impact on consumers' attitudes. Lastly, the existing themes serve as the analytical foundation for cross-cultural analysis of Finland and Bangladesh that allows for a discussion of culturally contingent differences in the experience and evaluation of these attributes.

3.5 Trustworthiness and Rigor

Regarding the need to make the firmness and credibility of this qualitative study, research design and analysis were conducted in the framework of trustworthiness presented by Lincoln and Guba (1985), which is similar to the more traditional notions of validity and reliability applied in quantitative research. It is based on four criteria which include credibility, transferability, dependability and confirmability. Each of them is defined and listed below, specifics of the approaches used to maximize them presented, and possible constraints of such measures summarized.

Credibility

Credibility refers to belief in the truthfulness of the results and their description that the study is a real picture of the experiences of the participants (Lincoln and Guba, 1985). It is the qualitative counterpart of internal validity. To improve the credibility, this paper used triangulation by comparing data of various parts of the interview (i.e. the discussion of the real-life use by the participants and their response to the

standard chatbot dialogue simulation). A check of the members (Birt et al., 2016) was also performed by providing an overview of the initial interpretations that included a sample of participants to ensure the legitimacy and significance of the findings.

Transferability

The extent to which the findings can be extrapolated to another context, or to another group of participants, is known as transferability. The researcher has the task of ensuring adequate information is presented in such a way that others can exercise this decision (Lincoln and Guba, 1985). This study is very thick and richly descriptive to enhance transferability (Lincoln and Guba, 1985). These contain vivid descriptions of the groups of participants in Finland and Bangladesh, the context of online shopping/problem solving of product or services and chatbot, and the cultural contexts. This richness makes the readers capable of drawing a judgment concerning the possibility of generalizing the results to other similar environments.

Dependability

Dependability is the reliability and consistency of the research process with time, as is the case with reliability in quantitative research. It demands that the process should be rational, traceable, and documented (Lincoln and Guba, 1985). A dependability audit was maintained in order to make sure that it is dependable. This entailed maintaining a log of every research decision in detail such as the formulation of the interview protocol, raw data, and transcription processes. Documenting each stage of the research systematically provides evidence that the research is both verifiable and reproducible and therefore enhances the overall dependability of the study.

Confirmability

Confirmability establishes the extent to which data and participants shape the results of the research, unlike researcher bias. It is the qualitative analog of objectivity (Lincoln and Guba, 1985). To increase the confirmability, the researcher maintained a continuous self-reflection throughout the research process and remained aware of potential biases during data collection and analysis. Finally, the quotations of the participants are presented to back up the results and show how the participants' quotations are interpreted in the analysis. If there are contrasting or conflicting viewpoints, those are also included when appropriate so as to provide a balanced interpretation of the data.

This study has identified a few limitations. First, the sample size was somewhat limited, and the results reflect the experiences and perspectives of a particular group of individuals. Second, the qualitative analysis is based on the interpretation of the researcher, which can introduce a degree of subjectivity. While measures were implemented to maximize the reliability and validity of the outcomes, there remains an element of researcher interpretation that cannot be eliminated in qualitative research. Lastly, the research has been limited to a retail chatbot scenario, and it is quite possible that the reactions of users will be different in other types of service contexts, although they did also reflect on their own experiences with chatbot interactions in the past.

3.6 Ethical Considerations

The study has been performed with the compliance to the Ethical Guidelines concerning the University of Vaasa, which guarantees the correspondence to the main ethical principles of the university to ensure proficiency, responsibility, reliability, respectful and equal treatment, and global responsibility.

In accordance with the university's research guidelines, the researcher has emphasized on the enhancement of critical thinking in a nurturing research atmosphere. The human subjects' participation in the research has been conducted with meticulousness and transparency, thereby maintaining the dignity of the human being and ensuring full respect for the participants' freedom, wholeness, and rights.

Before participating in the study, all participants were provided with detailed information via email regarding the purpose of the research, the interview process, data handling procedures, privacy protection measures, and their rights as participants. This allowed participants to make an informed decision on participation. All participants have given informed consent in writing and the importance of autonomy of choice and non-penal withdrawal has been noted, which implies that they should be given the freedom to take part in the study as well as withdraw at any point without penalty. Regarding confidentiality, all identifiable data has been eliminated in transcripts and pseudonyms will be used throughout all publications and reports.

This research follows all the national and institutional regulations of handling data. This includes compliance with the EU General Data Protection Regulation (GDPR) in Finland and all the data protection laws that should be followed in Bangladesh on the participants of the Bangladesh nationality. All data (video recording) and information shared during the interview will be treated confidentially and used only for academic purposes, and the data will be retained only until the thesis has been evaluated and graded according to university requirements. After this period, the data will be securely deleted. These measures are to safeguard the autonomy of the participants, provide the security of the data, and uphold the utmost research ethics.

4 Findings and Analysis: Consumer Attitudes toward Anthropomorphic Retail Chatbots in Finland and Bangladesh

This chapter provides the key results determined on the basis of the thematic analysis of the semi-structured interview held with the respondents in Finland and Bangladesh. The discussion was informed by six-stage model of Braun and Clarke (2006, pp. 8797), that entails familiarization of the data, coding, theme generation, reviewing, defining, and reporting. With the help of this method, the patterns of meanings were revealed in the way consumers in the two cultural settings interpret the two chatbot simulations and reflect to the anthropomorphic qualities of retail chatbots.

The research question that guided this analysis was: How do anthropomorphic attributes influence consumer attitudes toward retail chatbots in Finland and Bangladesh? The data used to carry out the analysis is based on 6 participants of the study (Three Finnish and three Bangladeshi adults) who previously used retail chatbots to shop or receive customer support online. This chapter relies on interview excerpts as first hand evidence in order to offer analysis and interpretation. Confidentiality and transparency will be ensured by coding the quotes using FI (Interviewee-Finland) and BD (Interviewee -Bangladesh) and then the numbers of participants (e.g. FI1, BD1).

The results are structured in line with the conceptual and theoretical framework offered in Chapter 2 that incorporated the Three-Factor Model of Anthropomorphism as developed by Epley et al. (2007) and the cross-cultural studies. This formation makes it possible to analyze the results in systematically moving through the main anthropomorphic features defined in the data (tone and communication, empathy and support, human-likeness, and responsiveness) to consumer attitudes toward these features, and ultimately to the cultural comparisons that describe how the Finnish and Bangladeshi participants perceive and value them differently.

4.1 Analysis of Bangladeshi (BD) Participants Attitudes toward Chatbots

The attitudes of Bangladeshi participants with regard to chatbots are discussed in this section. It focuses on their perception and assessment of the interactions with chatbots, such as their preferences for various communication styles, degrees of friendliness, and clarity of response.

Positive Attitudes

Positive attitudes of the Bangladeshi participants are largely related with friendly interaction, showing empathy, emotional understanding and a sense of personal connection.

Empathy and Warm Tone (Chatbot 1): If chatbot shows empathy, users will be very satisfied and happy. The chatbots' apologies and the emotional acknowledgement were in line with what BD 1 needed, and she was happy, so BD 1 said *"I would be glad and I would be so happy."* Likewise, BD 2 was also pleased with the greeting of Chatbot 1 saying *"very good. As like human"*.

Behavioral Human-Likeness (Chatbot 1): If the chatbot understands and provides accurate answers instantly, users feel valued. When they are asked to express happy feelings towards Chatbot 1, BD 3 express happy feelings toward it saying *"giving like instant, you know, the solutions and he is getting the point,"* and this makes them feel *"respected"* instead of *"valued"*.

Identity Cues (Chatbot 2): When chatbot using a human name, users will feel comfortable and trustful because they feel connected with each other, and feel like they are talking to a human being, not a robot. In Chatbot 2, BD 1 said about the name "Ella" - *"makes a difference. It's like, yeah, maybe I am talking to a human rather than AI"*.

BD 2 also said on name, *“Using name is like a customer. We think it's a real human... It influence. I mean, I like it”*

Negative and Uncertain Attitudes

Negative attitudes show up when the chatbot provides too much unnecessary information that makes it more difficult to follow.

Too Much Complexity (Chatbot 2): Users may be confused by unnecessary technical details. BD 2 described a poor impression of Chatbot 2 due to its technical jargon about return levels: *“Customer will be confused... unusual talks about a return level. This is not necessary”*.

Ambivalent Attitudes

Ambivalent emotions are found when users contrast emotional warmth with features of human identity or names.

Name vs. Empathy (Chatbot 1 vs. Chatbot 2): Users may experience both positive and uncertain effects when they are presented with emotional support and identity cues. BD 1 loved Chatbot 1 for the empathy but found the name of the Chatbot 2 attractive and ended the discussion by saying: *“The first one with the name would be just better”*.

Professionalism vs. Comfort: Professionalism and comfort were not always seen as the same. BD 3 thought that Chatbot 1 was *“more professional”*, yet Chatbot 2 was still more comfortable as the name made it feel like it was *“speaking to Ella”*. A formal and professional manner might also increase confidence in the chatbot's ability to resolve the problem, but a chatbot that has a name and a more personal interaction approach might encourage a sense of familiarity and emotional comfort. As BD3 said: *“which one I will choose and which one I like, I like the second one. The chatbot named Ella.”*

For this participant, the experience of having a familiar name to chat with was more natural and interesting.

4.2 Analysis of Finnish (FI) Participants Attitudes toward Chatbots

In this section, the attitudes of the Finnish participants towards chatbots are examined. It examines their experience with engaging in conversations with chatbots, their preferred communication style with chatbots, and their reactions to aspects of a chatbot like its tone, clarity, and usefulness.

Positive Attitudes

For Finnish consumer, positive attitudes are rooted in the clarity of answers, efficiency and familiarity in communication.

Administrative Certainty and Logic (Chatbot 1): Clear solutions and predictable results encourage positive attitudes, and these factors lead to user satisfaction. When asked about the satisfaction with Chatbot 1, FI 2 said that he was satisfied with it, due to the *“I like that there is like a certainty that that what will happen next that information is really important”* for the three-to-five-day replacement window provided.

Responsiveness (Chatbot 1 and 2): Quick and speedy responses which result in satisfaction. Chatbot 1 was found to be *“very fast to answer and give solutions”* by FI 3. Chatbot 2 was also described as *“efficient”*, the opinions being shared by FI 1 and FI 3 for being able to solve the problem quickly, but not so *“kind”*. The responses show that efficiency was also a key determinant of satisfaction on the part of the Finnish participants. Responses and solutions were generally preferred to emotional or friendly communication, particularly if quick.

Tone (Chatbot 2): The tone should be straightforward and simple, as it is more aligned with how it is used in the local communication style. FI 2 correlated chatbot 2 to the Finnish culture, stated: *“Finnish people are talking more like this second one... We don't say too many things”*.

Negative attitudes and Uncertain attitudes

When the tone is too emotional or too cold, negative feelings show up in the case.

Too Emotional/Over Empathetic (Chatbot 1): Excessive emotional expression is hard to deal with for Finns, sometimes. For this, FI 1 said about the empathy in Chatbot 1, *“almost over-empathetic... that ‘oh no’ is like oh no it's too much,”* which she called *“maternalistic”*.

Low Social Presence (Chatbot 2): Very formal tone may be unfriendly. FI 1 noted that Chatbot 2 could be a bit authoritarian and official in tone and said *“come across a bit strict and formal... maybe younger people see this conversation a bit rude”*.

Procedural Frustration: Generally *“Generic”* or copy/paste answers decrease satisfaction and make experience less satisfying. FI 1 said *“I just feel deflated by those chatbots because I already know what the answers they are giving me.”*

Ambivalent Attitudes

When the identity and the tone are not entirely congruent and when there is a mismatch of identity and context, there are mixed reactions.

Identity Paradox (Chatbot 2): The name of a human does not necessarily evoke the human feeling if the tone is robotic, FI 1 thought it was *“funny”* that the bot called Ella was *“more robot-like than the first one”*.

“a name doesn't change anything if the rest of your tone and your way of speaking is very robot-like” said FI 3.

Style: Preferential style varies depending on the situation. For banking it would be more appropriate to take a direct approach, but *“in any other scenario... the empathetic route is better”*, said FI 3.

Emotional Regulation (Chatbot 1): Emotional support may lead users to be calmer. FI 3 explained its value in *“emotional regulation”*, which means that *“you lower your energy in that situation”*.

4.3 Cross-Cultural Comparison between Bangladesh and Finland

Both the participants of Bangladesh and Finland showed speed and efficiency as basic criteria for a service provided by a chatbot, while emotional and communication style preferences differed.

Tone and Communication Style

The tone and communication style are suitable for the specific audience and purpose. Bangladeshi participants like to communicate in a warm, friendly, and relationship-oriented manner. They recognize the significance of emotional greetings and friendly language to provide good service. BD2 said that the natural greeting was *“very good. As like human”*, and that it makes the interaction more personal than transactional. On the other hand Finnish participants like to communicate clearly, directly, and simply.

They connect this with their culture as stated by F2 *"I think Finnish people are speaking more like this second one. Maybe that's... We don't... Say too many things"*.

Empathy and Support

Bangladeshi participants understand empathy and apologies as indications of caring and good service (e.g., *"I'm really very sorry to hear that"*). They see it as a way of making people more satisfied as BD1 said *"So the chatbox just said, you know, like, oh, sorry, I'm really very sorry to hear that. It's really a very good empathy or emotional support, I could say."* In contrast, Finnish participants feel too connected with or *"over-empathetic"* towards the other person or feel like *"mother-like"* said by FI1. But, when faced with a challenge, it will help the user to *"lower your energy"* and feel supported by the *"human component"* according to FI3.

Human-Likeness and Identity Cues:

Names and emotional responses are responsible for human feeling for Bangladeshi Participants. By using names such as 'Ella,' there is a sense that it is a real person, and BD1 said *"When any chatbot use name, that makes a difference. It's like, yeah, maybe I am talking to a human rather than AI."* But Finnish participants is given more importance to behavior than names (e.g., emojis and natural reactions). FI3 stated *"a name doesn't change anything if the rest of your tone and your way of speaking is very robot-like"* for explaining if the natural tone chatbot is absence then, a name doesn't make for human feeling.

Trust and Satisfaction

Bangladeshi Participants emphasized on trust based on respect and emotional value, when chatbot interacting in an emotional way, as BD3 said *"It's really what I feel valued. I told you before I feel valued and I feel respected."* On the other hand, in

Finland, participants must rely on whether the problem is solved or not, for trust. Trust, as FI1 put it, is dependent on whether getting replacement of product, saying like that, *“Well, it depends whether I get the new phone or not.”*

In some cases, the chatbots were expected to respond quickly by the participants in both Finland and Bangladesh. In general, however, the Finnish participants preferred the short, simple and easy-to-read answers, FI2 said *“I like the short answers and the simpleness in the conversation.”* which makes conversation simple and clear. However, Bangladeshi participants valued having detailed information provided quickly like *“So like a quick responses. This is a quick responses and give us several options”* said BD2, also stated, *“Customer will be confused”* if chatbot provides excessive information at times made the interaction confusing.

Cultural expectations that cause mixed feelings:

Consumer attitudes toward retail chatbots are design by cultural expectations which have been ingrained in people's brains, leading to psychological paradoxes, particularly, a *“Persona Paradox”* that identify by Finnish respondents. Human names such as *“Ella”* (Chatbot 2) are often used in design to make the bot more human to enhance the human-likeness, but in this case, Finnish users felt the opposite, as the tone and sometimes the message of the Chatbot was still *“dry”, “stiff”* or *“formal”*. In particular, FI 1 noted that the name of the chatbot was *“funny”*, was more like a robot, than the other one unnamed Chatbot 1. While FI 3 concluded that *“A name doesn't change anything if the rest of your tone and your way of speaking is very robot-like.”* For Finnish users, being empathetic might be more about consistency of behavior as a robot than a name. This is in contrast to an *“Emotional Regulation Paradox”* whereby, even though sometimes Finnish respondents FI1 and FI3 felt that the Chatbot's empathy level was *“almost over-empathetic”* or *“culturally too much (e.g., “oh no”)*”, they still found that it was a psychological benefit to them to be able to address the

emotions effectively to regulate the stress associated with a damaged product delivery, and thus "lower your energy in that situation" said by FI 3.

A key difference is also in the foundations of trust: Bangladeshi (BD 3) participants equate reliability with relational treatment and experiences of being "*valued*" and "*respected*" while Finnish (FI 1) participants have an outcome-based perspective like "*depends whether I get the new phone or not,*" in which being "*valued*" in an empathetic way will not compensate for failure to deliver the service.

Situational and linguistic aspects also affect the effectiveness of these anthropomorphic features: FI 3 said that chatbots were most likely to sound "*human*" when the service was a straight question and answer in high-stakes banking, but when the service was a general retail interaction, the chatbot preferred to sound "*empathetic*". FI 2 noted that the "*ideal*" tone depends on the language used, as chatbots seemed more "*human*" in English than in Finnish. Last but not least, both cultural groups recognized a "*Maternal Voice*" illusion of Chatbot 1, with BD 1 stating that the expressions in the bot were that of "*human emotion*", and FI 1 saying that the maternalistic tone of the bot was "*soothing and comforting and a bit mother-like,*" for her age group.

An "Ideal" Hybrid System: Both groups want flexibility with their chatbot. Bangladeshi users are looking for both emotional support and personal identity characteristics, whereas Finnish users are looking for a system that adapts tone according to context, with more emotional in less serious situations and more empathetic in more serious ones. FI 3 explained that addressing the stressful situation, feelings allow a customer to "*lower your energy in that situation*".

5 Discussion and Conclusion

This chapter highlights the key findings of this study in terms of the research objectives and literature. It provides a summary of the main findings related to how consumers' attitudes are influenced by anthropomorphic attributes of retail chatbots in Finland and Bangladesh and emphasizes the theoretical impact and managerial implications of the study. The chapter also recognizes the weaknesses of the study, and recommendations for further research are also given.

5.1 Summary of the Findings of the Study

The aim of this study was to explore the effect of anthropomorphic features on the attitude of the consumers towards retail chatbots in Finland and Bangladesh. The results revealed the significance of some anthropomorphic attributes, like: empathy, friendliness, emotional understanding, human-like interaction, identity cues, professionalism, and responsiveness, based on the Three-Factor Theory of Anthropomorphism. Thematic analysis method was used to analyze semi-structured interviews which identified four main themes: tone and communication style, empathy and support, human-likeness and responsiveness. The findings suggest that these attributes have significant impacts on consumer attitudes. The results indicate that these characteristics can have a significant effect on the attitudes of the consumer, but not always. Instead, consumers interpret anthropomorphic features considering their cultural understandings of how to communicate, customer service, how to fast solve the and how to interact socially. In this way, a single characteristic of the anthropomorphic form can cause positive, negative, and mixed feelings, depending on the context of the culture.

Significant differences were identified between the Bangladeshi and the Finnish consumers. The Bangladeshi participants mostly correlated the words empathy,

friendliness, emotional understanding, human-like interaction, and identity cues with positive attitudes toward retail chatbots as shown in Figures 3 and 4. Warm greetings, supportive language, emotional recognition, and conversational communication were considered as a sign of respect, caring, and service quality. Human names and identity cues enhanced social presence and increased the perceived personal nature of the interactions. This frequently involved that positive attitudes were linked to feeling valued, respected and emotionally supported in their interaction. For the Finnish participants, positive attitudes were mostly connected to professionalism, clarity, efficiency and empathy levels. Direct communication, problem solving, predictable, and reliability were thought to be the key factors to a positive chatbot experience. While some empathy was valued, especially when it came to dealing with customer frustration or service issues, overall, the participants favored short, simple and informative messages that were focused on the task-oriented and helping to deliver efficient service.

A few factors were identified that are related to negative attitudes. For those who were Bangladeshi participants, negative evaluations cause when the chatbots ended up using a high degree of technical jargon, procedural explanations that were too much or too complicated. These features made it difficult to maintain the conversation and impacted user comfort. The results indicate that Bangladeshi consumers consider the effectiveness of the chatbot in solving their problems, as well as the comfort and ease of communication. The Finnish respondents, on the other hand, showed negative attitudes if the chatbot communication were too emotional, too sympathetic, too generic or scripted. This kind of responses was often seen as being untrue, culturally misrepresentative, or not “professional” to the person asking the question. Negative feedback also occurred when a too anthropomorphic cue was not correlated with the chatbot's actual behavior, which lowered the perceived authenticity and trustworthiness.

Positive and negative attitudes were not the only attitudes found in the study; there were also a number of ambivalent attitudes towards anthropomorphic features. For those in Bangladesh, emotional warmth, identity-based personalisation, and the professional aspect/comfort were mixed. The emotional support and the cues of human identity were both appreciated by the participants and sometimes they preferred a combination of these features instead of choosing one. Likewise, there was ambivalence among the Finnish respondents for a number of anthropomorphic features. The results indicated the Persona Paradox, which suggested that increasing human likeness is possible only by using natural and authentic communication in combination with human names. Perceptions of artificiality were sometimes worse and without identity cues, chatbot behaviour was perceived as robotic. Another finding of the study was the Emotional Regulation Paradox. In some cases, emotional responses were seen as excessive, and for the situations of frustration and/or stress, an "acknowledge the emotions" response was appreciated. This shows that anthropomorphic attributes do not have a negative or positive effect, but rather depend on the service context, on the communication context, and the expectations of the user.

While there were differences, however, there were also some similarities between these two countries. Responsiveness, correct understanding of the customer's needs, and problem solving skills were always appreciated. Responding quickly, comprehending and providing a solution to customer enquiries was usually received with positive feedback. However, the definitions of 'responsiveness' were different in the two contexts

The differences between the responses of Finns and Bangladeshis were small. Respondents in both countries tended to connect responsiveness with efficiency, accuracy and competence, and for Bangladeshis with attentiveness, care, and relational engagement as well. However, the situation with trust was similar in both countries, but in different ways. Bangladeshi consumers' trust was established through

empathy, respectful responses and emotional recognition, whereas Finnish consumers' trust was built more on reliability, competence and successful problem solving. Emotion was seen as an important aspect of enhancing the interaction experience, although in general the level of the service performed was regarded as the main platform of trust for the Finnish participants.

One interesting finding was discovered that not one style of chatbot was necessarily preferred by the participants of either country. Rather, many responded that they would like to have something more “mixed” which means chatbot that could be both emotional and efficient. The desirable properties of a chatbot for the Bangladeshis were empathy, social warmth and human cues, while for the Finns the ability to change modes of communication according to context was preferred. Empathetic communication was considered more appropriate for emotionally sensitive problem-solving interactions, and direct and efficient communication during problem solving interactions. The results show that users regard the anthropomorphic attributes in general, and that they liked the way in which a chatbot adapts to the various situations and the services needed.

From the overall perspective, the results provide an answer to the research question by showing how anthropomorphic features affect the attitudes of consumers in both countries, Finland and Bangladesh; however, the effects of the anthropomorphic features are influenced by culture. Although the anthropomorphic attributes were perceived by the Bangladeshi consumers in an empathic, warm and social orientation, the same attributes were interpreted by the Finnish consumers in terms of professionalism, authenticity, clearness and efficiency. Based on the results, it could therefore be concluded that the attributes of anthropomorphic chats do not directly influence consumer attitudes. Instead, such attributes are subject to influences from the culture, which may result in positive, negative, or ambivalent evaluations. This builds on previous anthropomorphic research by showing that anthropomorphic chatbot design is not only effective due to the presence of human-like elements, but

also through their congruence with culturally specific expectations. The results also underscore the need to consider the functional and cultural appropriateness of human-like communication in chatbot interaction and the need for flexibility in the interaction to recognize the different expectations of the user and in different service contexts.

In **figure 3 and figure 4**, there are Adapted Theoretical Framework: Bangladesh and Finland consumer perspective.

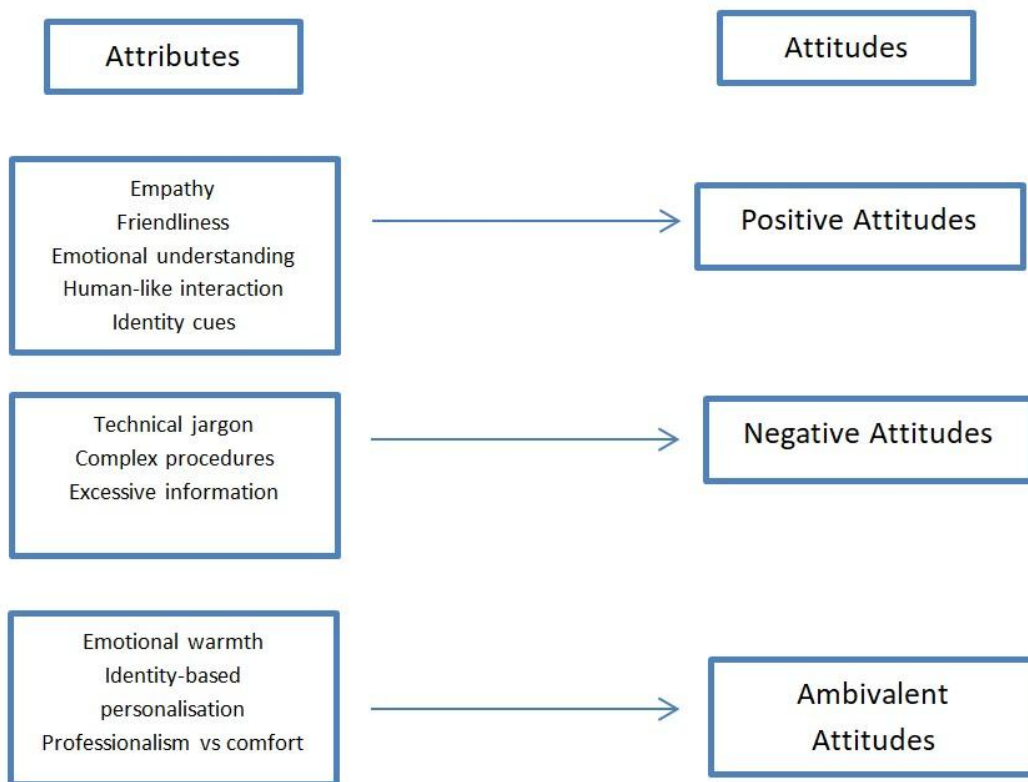


Figure 3: Adapted Theoretical Framework: Bangladesh

In **figure 3**. This figure shows the anthropomorphic features of the Chatbots associated with positive, negative, and ambivalent attitude from the consumers of Bangladesh. Positive attitudes were related to empathy, friendliness, emotional understanding, human-like interaction, and human identity cues (human names). Negative attitudes arose when the communication was too detailed, technical or too complicated.

Emotional warmth, identity-based personalization, and a balance between professionalism and interpersonal comfort were related to ambivalent attitudes, indicating that consumers prefer to include relational and functional features in their interactions with a chatbot.

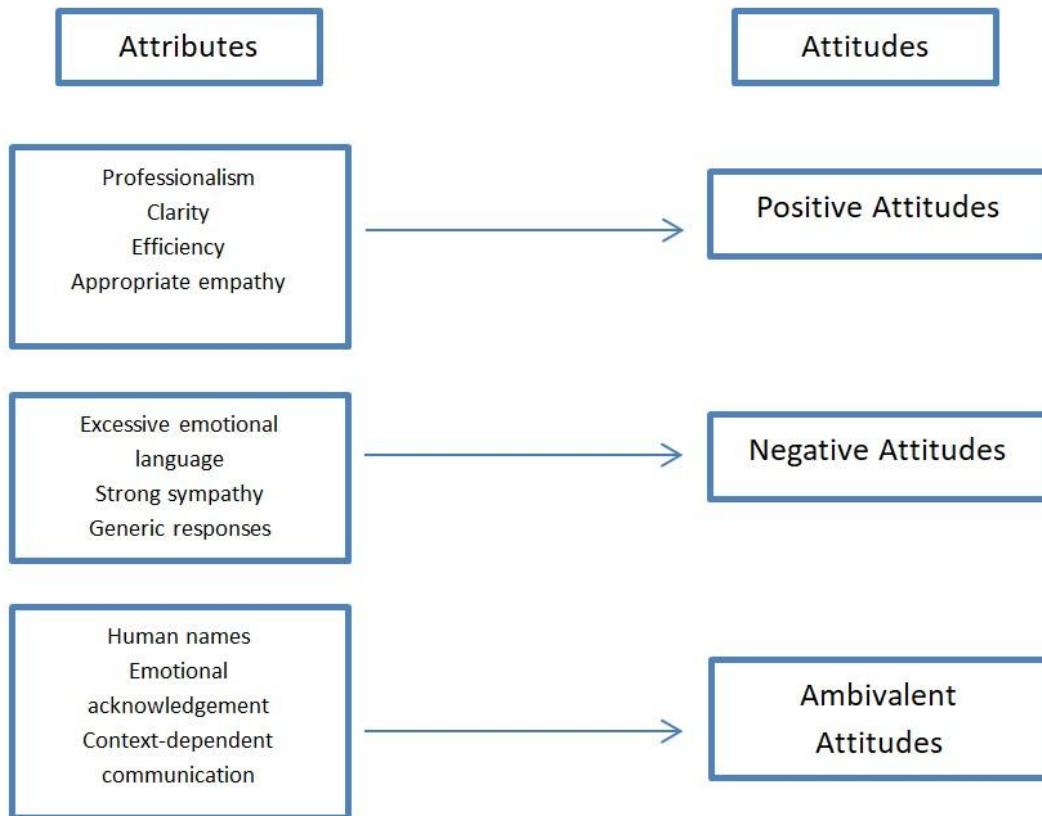


Figure 4: Adapted Theoretical Framework: Finland

In **figure 4**. This represents the anthropomorphic attributes of the chatbot linked to positive, negative and ambivalent attitudes of Finnish consumers. Positive attitudes were linked to professionalism, clarity, efficiency, and appropriate empathy. The negative attitudes that arose included when a communication was too emotional, too friendly, too generic, or when a person was not authentic. Human names and emotional acknowledgements were correlated with ambivalent attitudes while context-dependent communication preferences were correlated with non-ambivalent attitudes, suggesting that evaluations of anthropomorphic features differed depending on service situations.

5.2 Theoretical Contribution

This study builds on the theoretical framework outlined in Chapter 2, which incorporates elements of the Three-Factor Theory of Anthropomorphism (Epley et al., 2007; Waytz et al., 2010; Hofstede, 2011) and cross-cultural approaches to human–technology interaction. The anthropomorphic chatbot attributes discussed in the interviews were related to the participants' evaluations of the tone and communication of the chatbot, empathy and support, human-likeness, and responsiveness. The results also indicate, however, that the anthropomorphic processes are not necessarily understood in the same way across cultures. Instead, cultural context can affect consumers' perception and response to anthropomorphic features of chatbots, which in turn could impact their attitudes, including trust, satisfaction, comfort, and general evaluations of chatbot interactions.

Results align with prior studies which show that conversational cues, empathic communication, and identity signals are sources of perceptions of humanness, social presence, and trust (Araujo, 2018; Go & Sundar, 2019; Sheehan et al., 2020; Rese et al., 2020; Seeger et al., 2021). This study also builds on the previous work by showing that these cues are interpreted differently culturally. The Finnish chatbot users reported positive experiences with chatbots mainly as the following attributes: clarity, authenticity, responsiveness, and problem solving. The results align with earlier studies indicating that Finnish customers highly value chatbots for their informative and problem-solving capabilities, with dissatisfaction typically arising when the answers are not clear or helpful (Weurlander, 2023). Contrary to this, the main findings of the study indicate that Bangladeshi participants often linked the emotional aspects of service such as warmth, politeness, empathy, and personalized communication with the service quality and trustworthiness of service providers. In contrast, previous studies found that emotional engagement, which includes aspects like warmth, politeness, empathy, and personalized communication, was closely tied to service quality and the

perception of trustworthiness in service interactions (Bhuiyan et al., 2024; Emon et al., 2024).

Responsiveness was seen as a salient attribute in both cultural groups. The participants from Finland and Bangladesh appreciated the chatbots that offered immediate help and effective answers, indicating that responsiveness is a core expectation of chatbots in a retail setting, irrespective of geographical location. But what exactly was meant by responsiveness varied between the two groups. Finnish participants linked responsiveness to competence, reliability and successful task completion while Bangladeshi participants tended to interpret responsiveness as a sign of attentiveness and customer care. This result builds on previous works in the literature on chatbots by proposing that the same anthropomorphic features can lead to positive evaluations based on different culturally shaped expectations and perceptions (Araujo, 2018; Luo et al., 2019; Toader et al., 2020).

The study also identifies key boundary conditions in anthropomorphic design of a chatbot. The results are aligned with the previous studies and indicate that anthropomorphic features can become ineffective when used in an excessive, inauthentic and/or unexpected manner (Luger & Sellen, 2016; Song et al., 2023; Złotowski et al., 2015). Several Finnish participants felt that being overly emotional or overly empathetic was unnecessary or culturally inappropriate, while many of the Bangladeshi participants saw such responses as being sincere, a sign of respect, and a form of emotional support. Similarly, many Bangladeshi participants welcomed the use of human names as identity cues, while Finnish participants were more critical of it unless paired with authentic conversational behavior. The results are consistent with past research indicating that anthropomorphic cues are not universally trust-building and satisfying for users but can be effective when they are consistent with their expectations and the communication norms of the cultural context (Sheehan et al., 2020; Li et al., 2024).

The key theoretical insight of this study is to prove, with qualitative and comparative evidence, that cultural context has an impact on the interpretation of anthropomorphic chatbot attributes and their impacts on consumer attitudes. The results indicate that anthropomorphic properties of the chatbot including communication style, empathy, human-likeness, and responsiveness are typically associated with positive consumer attitudes both in Finland and in Bangladesh, with the difference being that the attributes have different impacts across the cultures. The main values for Finnish consumers are functional performance, authenticity, logic, and problem solving, and trust is built on reliability and on outcomes, while for the Bangladeshi consumers, values are mainly emotional engagement, interpersonal warmth and cues of personalized identity which lead to respect and social connection. One exception for Finnish participants was appreciation of moderate empathy during stressful service situations, which was found not to be perceived as an excessive empathy. Both groups preferred a blended chatbot that had empathetic capabilities and personal identity attributes, with responsiveness, speed, and efficiency features being expected across both countries. The findings are a continuation of the Three-Factor Theory of Anthropomorphism, which demonstrates that anthropomorphic cues have been interpreted as part of culturally rooted expectations of communication, emotion, and interactions with customer service.

5.3 Managerial Implications

This study's findings show managers how to use the following strategies in culturally diverse markets: retailers, chatbot developers, customer service managers and digital marketing professionals. The findings suggest that the sensitivity of the consumers to anthropomorphic attributes of chatbots varies across the Finnish and Bangladesh contexts, which means that instead of a one-size-fits-all approach, culturally adapted and locally designed chatbot strategies are recommended.

Managers need to understand that communication style plays a crucial role in customer perception of interacting with a chatbot. The results suggest that there are differences in consumer preferences in Bangladesh regarding warm, conversational, and emotionally expressive communication, while Finnish consumers tend to prefer concise, direct, and task-oriented communication. In this regard, retail managers aiming at the Bangladeshi customers should try to adopt the features of friendly greeting, relational language and supportive responses in the design of their chatbots. On the other hand, companies providing products or services for Finnish consumers should focus on maintaining a transparent communication, efficiency and simplicity when addressing problems, and not too much emotion that can be seen as unnecessary or maybe even culturally inappropriate.

Second, the findings indicate a need to strategically adapt empathy to cultural expectations. The empathetic responses from the participants were seen as a sign of care, professionalism, and emotional intelligence, all of which had a positive impact on their attitudes toward the chatbot. Empathy was particularly valued by the Finns in times of stress, while too much feeling was not. It's therefore crucial for managers to ensure that chatbot scripts are well-balanced in their emotional approach and cultural appropriateness. The one size fits all empathy approach could decrease customer satisfaction in some markets.

Third, managers need to be aware that there are different ways of building trust in different cultures. Respect, emotional support and individual communication builds trust among the consumers of Bangladesh. Reliability, responsiveness, and solving problems successfully are more important for the trust of the Finnish consumers. This means that the performance indicators of a chatbot must be tied to local customer expectations, making it imperative for customer experience managers to match them. Emotional involvement can help build trust in Bangladesh, whereas in Finland, it is more important to focus on operational efficiency and service reliability.

Fourth, the results highlight the need for authenticity in implementing anthropomorphic features. The use of human name and other hint of identity helped to improve the sense of social presence and personalization among the Bangladeshi participants. These cues were however perceived more critically by the Finnish respondents and were expecting a consistency between the identity of the chatbot and their communication with it. In light of this, the managers should not overlook the superficial anthropomorphic features and ensure that the chatbot's actions are in line with the desired human appearance.

Fifth, the study emphasizes responsiveness as a general need in both cultures. The Finnish participants rated chatbots where responses were fast and solutions effective as consistently high. Chatbots that offer prompt responses and help with the solutions were consistently rated highly by the participants from Finland. As a result, technical performance, response speed and problem-solving abilities should be considered key design elements of a chatbot, irrespective of market distinctions. Anthropomorphic features can augment the user experience, but do not make up for a poor service performance.

Lastly, managers in an international context should have a culturally adaptive chatbot approach. Organizations shouldn't use the same chatbot systems for all markets, however, they should tailor communication style, empathy and anthropomorphic characteristics to match the cultural preferences of target consumers. Pilot programs engaging local users along with ongoing feedback gathering can ensure that the experience of interacting with the chatbot is in accordance with the expectations of the customers. In a world increasingly dominated by artificial intelligence in the retail sector, these culturally responsive strategies can enhance customer satisfaction, build trust, and foster customer loyalty for the long term.

5.4 Limitations and Future Research

While this study offers significant insights into the attitudes of consumers in Finland and Bangladesh towards anthropomorphic retail chatbots, several limitations of the study should be noted.

Firstly, the study used a small qualitative sample of six subjects, three from Finland and three from Bangladesh. The findings from this sample size cannot be extrapolated to the general populations of either country, although this was sufficient for an exploratory qualitative investigation where more in-depth understanding of the participants' experiences and perceptions was required. Larger samples and quantitative or mixed exploratory or explanatory methods may be used in future studies to determine if the cultural patterns found in this study are representative for a wider population of consumers. Secondly, the study employed semi-structured interviews, where the participants were asked to think about the uses of chatbot and to assess examples of chatbot conversations. This method allowed participants to describe their perceptions of communication style, empathy, trust, and human-likeness in detail, but the results might not necessarily be reflective of what the participants actually experience in a real-time chatbot conversation. Experimental designs or interactions with live chatbots might be used in future studies to gain insights into consumer responses in real service scenarios and to compare consumer behaviors to consumer self-reports of their attitudes.

Then, the results indicate that the cultural context affects the interpretations of Anthropomorphic Chatbot attributes. Culture was studied however mostly in comparison with the national level of Finland and Bangladesh. This method could fail to consider relevant differences between countries, such as age, education, job, digital competence, and a prior use of AI technologies. Some participants also exhibited situational preferences when describing their attitudes toward anthropomorphic chatbots in the interviews, indicating that there can be contextual differences. Hence,

there is a need to explore the relationship between the demographic and contextual factors and culture to understand how these combine to affect consumer perceptions of anthropomorphic chatbots in future research.

Also, this research concentrated mainly on verbal anthropomorphic features such as communication style, empathy, conversational tone, responsiveness, and identity cues such as chatbot names. The results showed that participants from Bangladesh felt good about emotional and relational communication while the participants from Finland showed a focus on authenticity, efficiency and cultural appropriateness. Other anthropomorphic factors like avatars, facial expressions, voice qualities and gender portrayal, and visual design, however, were not investigated. Future studies may look into the effects of these non-verbal anthropomorphic features on trust, satisfaction, perceived authenticity, and engagement in various cultural environments.

Lastly, the study was carried out in the context of retail customer service chatbots. Whereas service professionalism, empathy, and trust expectations may vary significantly across other services related areas of consumer life like banking, healthcare, education, government services, or hospitality, consumer responses may be different in these contexts. In future research, the anthropomorphic design of chatbots should be examined in a variety of different service contexts and industries to check whether the cultural patterns found in this research stay stable.

In general, the results of this research show that besides technological aspects, the anthropomorphic design of chatbots is also influenced by cultural needs and expectations for communication, emotions, and customer service. Larger sample size, more diverse cultural groups, more experimental designs and more anthropomorphic attributes should be included in future research to better understand the role culturally adaptive chatbots designs can play in enhancing the experience of consumers in more AI-driven service contexts.

References

- Adam, M., Wessel, M., & Benlian, A. (2021). AI-based chatbots in customer service and their effects on user compliance. *Electronic Markets*, 31(2), 427–445. <https://doi.org/10.1007/s12525-020-00414-7>
- Al-Shafei, M. (2024, January 12). Navigating human-chatbot interactions: An investigation into factors influencing user satisfaction and engagement. *International Journal of Human-Computer Interaction*. <https://doi.org/10.1080/10447318.2023.2301252>
- Alshenqeeti, H. (2014). Interviewing as a data collection method: A critical review. *English Linguistics Research*, 3(1), 39–45. <https://doi.org/10.5430/elr.v3n1p39>
- Ameen, N., Tarhini, A., Reppel, A., & Anand, A. (2021). Customer experiences in the age of artificial intelligence. *Computers in Human Behavior*, 114, 106548. <https://doi.org/10.1016/j.chb.2020.106548>
- Araujo, T. (2018). Living up to the chatbot hype: The influence of anthropomorphic design cues and communicative agency framing on conversational agent and company perceptions. *Computers in Human Behavior*, 85, 183–189. <https://doi.org/10.1016/j.chb.2018.03.051>
- Arce-Urriza, M., Chocarro, R., Cortiñas, M., & Marcos-Matás, G. (2025). From familiarity to acceptance: The impact of generative artificial intelligence on consumer adoption of retail chatbots. *Journal of Retailing and Consumer Services*, 84, 104234. <https://doi.org/10.1016/j.jretconser.2025.104234>
- Aggarwal, P., & McGill, A. L. (2007). Is that car smiling at me? Schema congruity as a basis for evaluating anthropomorphized products. *Journal of Consumer Research*, 34(4), 468-479. <https://academic.oup.com/jcr/article-abstract/34/4/468/1820244?redirectedFrom=fulltext>

- Azam, M. S., Morsalin, Md., Rakib, Md. R. H. K., & Pramanik, S. A. K. (2021). Adoption of electronic commerce by individuals in Bangladesh. *Information Development*, 39(4), 764-786. <https://doi.org/10.1177/02666669211052523>
- Bach, T. A., Khan, A., Hallock, H., Beltrão, G., & Sousa, S. (2022). A Systematic Literature Review of User Trust in AI-Enabled Systems: An HCI Perspective. *International Journal of Human-Computer Interaction*, 40(5), 1251-1266. <https://doi.org/10.1080/10447318.2022.2138826>
- Bartneck, C., Kulić, D., Croft, E., & Zoghbi, S. (2009). Measurement instruments for the anthropomorphism, animacy, likeability, perceived intelligence, and perceived safety of robots. *International Journal of Social Robotics*, 1(1), 71-81. <https://doi.org/10.1007/s12369-008-0001-3>
- Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117(3), 497-529. <https://doi.org/10.1037/0033-2909.117.3.497>
- Bhattacharjee, A., & Premkumar, G. (2004). Understanding changes in belief and attitude toward information technology usage: A theoretical model and longitudinal test. *MIS Quarterly*, 28(2), 229-254. <https://doi.org/10.2307/25148634>
- Bhuiyan, K. H., Ahmed, S., & Jahan, I. (2024). Consumer attitude toward using artificial intelligence (AI) devices in hospitality services. *Journal of Hospitality and Tourism Insights*, 7(2), 968-985. <https://doi.org/10.1108/JHTI-08-2023-0551>
- Bickmore, T., & Cassell, J. (2001). *Relational agents: A model and implementation of building user trust*. New York, NY, USA: ACM. <https://doi.org/10.1145/365024.365304>

- Birt, L., Scott, S., Cavers, D., Campbell, C., & Walter, F. (2016). Member checking: A tool to enhance trustworthiness or merely a nod to validation? *Qualitative Health Research*, 26(13), 1802–1811. <https://doi.org/10.1177/1049732316654870>
- BMC Psychology (2024). *Interactivity, humanness, and trust: A psychological approach to AI chatbot adoption in e-commerce*. *BMC Psychology*, 12, Article 595. <https://doi.org/10.1186/s40359-024-02083-z>
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Bray, J., Johns, N., & Kilburn, D. (2011). An exploratory study into the factors impeding ethical consumption. *Journal of Business Ethics*, 98(4), 597–608. <https://doi.org/10.1007/s10551-010-0640-9>
- Breazeal, C. (2003). Toward sociable robots. *Robotics and Autonomous Systems*, 42(3–4), 167–175. [https://doi.org/10.1016/S0921-8890\(02\)00373-1](https://doi.org/10.1016/S0921-8890(02)00373-1)
- Bruce, V., & Young, A. (2012). *Face perception*. Psychology Press. https://api.pageplace.de/preview/DT0400.9781135845728_A23809124/preview-9781135845728_A23809124.pdf?utm_source
- Cao, B., Li, Z., & Jiang, C. (2024). When chatbots make errors: Cognitive and affective pathways to forgiveness of chatbot errors. *Telematics and Informatics*, 90, 102189. <https://doi.org/10.1016/j.tele.2024.102189>
- Chattaraman, V., Kwon, W. S., & Gilbert, J. E. (2019). Virtual agents in retail websites: Benefits of simulated social interaction for older users. *Computers in Human Behavior*, 90, 385–397. <https://doi.org/10.1016/j.chb.2012.06.009>

- Chen, S., Wang, P., & Wood, J. (2025, July 2). Exploring the varying effects of chatbot service quality dimensions on customer intentions to switch service agents. *Scientific Reports*. <https://doi.org/10.1038/s41598-025-06490-z>
- Chen, J., Li, M., & Ham, J. (2024). *Different dimensions of anthropomorphic design cues: How visual appearance and conversational style influence users' information disclosure tendency towards chatbots*. *International Journal of Human-Computer Studies*, 190, 103320. <https://doi.org/10.1016/j.ijhcs.2024.103320>
- Creswell, J. W., & Poth, C. N. (2018). *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.). SAGE Publications. <https://tinyurl.com/45vbdzp7>
- Dabbous, A., & Barakat, K. A. (2020). Bridging the online offline gap: Assessing the impact of brands' social network content quality on brand awareness and purchase intention. *Journal of retailing and consumer services*, 53, 101966. <https://doi.org/10.1016/j.jretconser.2019.101966>
- Duffy, B. R. (2003). Anthropomorphism and the social robot. *Robotics and Autonomous Systems*, 42(3–4), 177–190. [https://doi.org/10.1016/S0921-8890\(02\)00374-3](https://doi.org/10.1016/S0921-8890(02)00374-3)
- Emon, M. M. H., Khan, T., & Rahman, M. A. (2024). EXPLORING CONSUMER RESPONSE TO TEXT-BASED CHATBOTS IN F-COMMERCE: A QUALITATIVE STUDY ON BANGLADESHI SME'S. *JUTI: Jurnal Ilmiah Teknologi Informasi*, 22(2), 78-82. <https://doi.org/10.12962/j24068535.v22i2.a1181>
- Epley, N., Waytz, A., & Cacioppo, J. T. (2007). On seeing human: A three-factor theory of anthropomorphism. *Psychological Review*, 114(4), 864–886. <https://doi.org/10.1037/0033-295X.114.4.864>
- Eyssel, F., & Hegel, F. (2012). (S)he's got the look: Gender stereotyping of robots. *Journal of Applied Social Psychology*, 42(9), 2213–2230. <https://doi.org/10.1111/j.1559-1816.2012.00937.x>

- Eyssel, F., & Reich, N. (2013). Loneliness makes the heart grow fonder (of robots)? On the effects of loneliness on psychological anthropomorphism and the willingness to interact with robots. https://triton.fina.fi/PrimoRecord/pci.cdi_acm_books_10_5555_2447556_2_447597_brief?sid=5165952593
- Fink, J. (2012). Anthropomorphism and human likeness in the design of robots and human-robot interaction. In S. S. Ge, O. Khatib, J.-J. Cabibihan, R. Simmons, & M.-A. Williams (Eds.), *Social Robotics* (pp. 199-208). Springer Berlin Heidelberg. https://doi.org/10.1007/978-3-642-34103-8_20
- Floridi, L., Cows, J., Beltrametti, M., Chatila, R., Chazerand, P., Dignum, V., ... & Vayena, E. (2018). AI4People—An ethical framework for a good AI society: Opportunities, risks, principles, and recommendations. *Minds and Machines*, 28(4), 689–707. <https://doi.org/10.1007/s11023-018-9482-5>
- Folk, D. P., Wu, C., & Heine, S. J. (2025). Cultural Variation in Attitudes Toward Social Chatbots. *Journal of Cross-Cultural Psychology*, 56(3), 219-239. <https://doi.org/10.1177/00220221251317950>
- Følstad, Asbjørn & Skjuve, Marita. (2019). Chatbots for customer service: user experience and motivation. CUI '19: Proceedings of the 1st International Conference on Conversational User Interfaces. 1-9. <https://doi.org/10.1145/3342775.3342784>
- Galletta, A., Cross, W. E. (2013). *Mastering the Semi-Structured Interview and Beyond: From Research Design to Analysis and Publication*. United Kingdom: NYU Press. <https://tinyurl.com/2s37adfu>
- Gentsch, P. (2022). *AI in marketing, sales and service: How marketers without a data science degree can use AI, big data and bots* (2nd ed.). Springer. <https://ebookcentral-proquest-com.proxy.uwasa.fi/lib/tritonia-ebooks/reader.action?docID=5566829&c=RVBVQg&ppg=1>

- Go, E., & Sundar, S. S. (2019). Humanizing chatbots: The effects of visual, identity, and conversational cues on humanness perceptions. *Computers in Human Behavior*, 97, 676–684. <https://www.sciencedirect.com/science/article/abs/pii/S0747563219300329>
- Gong, L. (2008). How social is social responses to computers? The function of the degree of anthropomorphism in computer representations. *Computers in Human Behavior*, 24(4), 1494–1509. <https://doi.org/10.1016/j.chb.2007.05.007>
- Gray, K., & Wegner, D. M. (2012). Feeling robots and human zombies: Mind perception and the uncanny valley. *Cognition*, 125(1), 125–130. <https://doi.org/10.1016/j.cognition.2012.06.007>
- Guest, G., Bunce, A., & Johnson, L. (2006). How many interviews are enough? An experiment with data saturation and variability. *Field Methods*, 18(1), 59–82. <https://doi.org/10.1177/1525822X05279903>
- Guthrie, S. (1993). *Faces in the clouds: A new theory of religion*. Oxford University Press.(pp.39–41).<https://ebookcentral-proquest-com.proxy.uwasa.fi/lib/tritonia-ebooks/detail.action?docID=4700501>
- Hegel, F., Krach, S., Kircher, T., Wrede, B., & Sagerer, G. (2008). Understanding social robots: A user study on anthropomorphism. *2008 17th IEEE International Symposium on Robot and Human Interactive Communication*, 574–579. <https://doi.org/10.1109/ROMAN.2008.4600728>
- Hu, H., & Ma, F. (n.d.). Human-like bots are not humans: The weakness of sensory language for virtual streamers in livestream commerce. *Journal of Retailing and Consumer Services*, 77, 103667. <https://doi.org/10.1016/j.jretconser.2023.103541>

- Henry, S. G. (2012). Video elicitation interviews: A qualitative research method for investigating physician–patient interactions. *Annals of Family Medicine*, 10(2), 118–125. <https://doi.org/10.1370/afm.1339>
- Hofstede, G. (2011). Dimensionalizing Cultures: The Hofstede Model in Context. *Online Readings in Psychology and Culture*, 2(1). <https://doi.org/10.9707/2307-0919.1014>
- Hollmer, M. (2023). Slowly but surely, dealers put ChatGPT to work: AI-driven chatbot enhances retail tools. *Automotive News*, 97(7098), 1. <https://research-ebSCO-com/linkprocessor/plink?id=b9381c44-3583-38d7-ba51-e9c67d6f30bd>
- Holtgraves, T., Ross, S. J., Weywadt, C., & Han, T. L. (2007). Perceiving artificial social agents. *Computers in Human Behavior*, 23(5), 2163–2174. <https://doi.org/10.1016/j.chb.2006.02.017>
- Holzwarth, M., Janiszewski, C., & Neumann, M. M. (2006). The Influence of Avatars on Online Consumer Shopping Behavior. *Journal of Marketing*, 70(4), 19-36. <https://doi.org/10.1509/jmkg.70.4.019>
- Hsu, PF., Nguyen, T.(., Wang, CY. *et al.* Chatbot commerce—How contextual factors affect Chatbot effectiveness. *Electron Markets* 33, 14 (2023). <https://doi.org/10.1007/s12525-023-00629-4>
- Ilieva, G., Yankova, T., Dzhabarova, Y., Ruseva, M., Angelov, D., & Klisarova-Belcheva, S. (2023). Customer attitude toward digital wallet services. *Systems*, 11(4), 185. <https://doi.org/10.3390/systems11040185>
- Ive, J., Yadav, V., Ignashina, M., et al. (2024). Privacy-preserving behaviour of chatbot users: Steering through trust dynamics. *arXiv*. <https://arxiv.org/abs/2411.17589>

- Jiang, K., Qin, M., & Li, S. (2022). Chatbots in retail: How do they affect the continued use and purchase intentions of Chinese consumers? *Journal of Consumer Behaviour*, 21(5), 1234–1248. <https://doi.org/10.1002/cb.2034>
- Karimova, G. Z. (2025, July 12). Not in our image: Rethinking anthropomorphism in expert chatbot design. *AI & Society*. <https://doi.org/10.1007/s00146-025-02438-z>
- Kiesler, S., & Hinds, P. (2004). Introduction to This Special Issue on Human-Robot Interaction. *Human-Computer Interaction*, 19(1-2), 1-8. [https://www-tandfonline-com.proxy.uwasa.fi/doi/abs/10.1080/07370024.2004.9667337](https://www.tandfonline-com.proxy.uwasa.fi/doi/abs/10.1080/07370024.2004.9667337)
- Li, Y., Hou, R., & Tan, R. (2024). How customers respond to chatbot anthropomorphism: The mediating roles of perceived humanness and perceived persuasiveness. *European Journal of Marketing*, 58(12), 2757–2790. <https://doi.org/10.1108/EJM-11-2022-0827>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Sage. <https://us.sagepub.com/en-us/nam/naturalistic-inquiry/book842>
- Luger, Ewa & Sellen, Abigail. (2016). "Like Having a Really Bad PA": The Gulf between User Expectation and Experience of Conversational Agents. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 5286–5297). Association for Computing Machinery. <https://doi.org/10.1145/2858036.2858288>
- Luo, X., Tong, S., Fang, Z., & Qu, Z. (2019). Frontiers: Machines vs. humans: The impact of AI chatbots on consumer purchase behavior. *Marketing Science*, 38(6), 937–947. <https://doi.org/10.1287/mksc.2019.1192>
- MacDorman, K. F., & Ishiguro, H. (2006). The uncanny advantage of using androids in cognitive and social science research. *Interaction Studies*, 7(3), 297–337. <https://doi.org/10.1075/is.7.3.03mac>

- Mori, M., MacDorman, K. F., & Kageki, N. (2012). The uncanny valley [From the field]. *IEEE Robotics & Automation Magazine*, 19(2), 98–100. <https://doi.org/10.1109/MRA.2012.2192811>
- Moriuchi, E., Landers, V. M., Colton, D., & Hair, N. (2021). Engagement with chatbots versus augmented reality interactive technology in e-commerce. *Journal of Strategic Marketing*, 29(5), 375–389. <https://doi.org/10.1080/0965254X.2020.1740766>
- Mpinganjira, M., Dlodlo, N., & Idemudia, E. C. (2024). Perceived experiential value and continued use intention of e-retail chatbots. *International Journal of Retail & Distribution Management*, 52(13), 121–135. <https://doi.org/10.1108/IJRDM-04-2023-0237>
- Myin, M. T., & Watchravesringkan, K. (2024). Investigating consumers' adoption of AI chatbots for apparel shopping. *Journal of Consumer Marketing*, 41(3), 314–327. <https://doi.org/10.1108/JCM-03-2022-5234>
- Nass, C., & Moon, Y. (2000). Machines and mindlessness: Social responses to computers. *Journal of Social Issues*, 56(1), 81–103. <https://doi.org/10.1111/0022-4537.00153>
- Nass, C., Moon, Y., & Green, N. (1997). Are machines gender neutral? Gender-stereotypic responses to computers with voices. *Journal of Applied Social Psychology*, 27(10), 864–876. <https://doi.org/10.1111/j.1559-1816.1997.tb00275.x>
- Ngong, I. C., Kadhe, S., Wang, H., et al. (2025). Protecting users from themselves: Safeguarding contextual privacy in interactions with conversational agents. *arXiv*. <https://arxiv.org/abs/2502.18509>

- Nguyen, T., Hsu, P.-F., Wang, C.-Y., & Chen, L. (2023). Chatbot commerce—How contextual factors affect chatbot effectiveness. *Electronic Markets*, 33(1), 13–31. <https://doi.org/10.1007/s12525-023-00629-4>
- OpenAI. (2025). *ChatGPT (GPT-5, October 2025 version)* [Large language model]. <https://chat.openai.com/>
- Oulasvirta, A., & Blom, J. (2008). Motivations in Personalisation Behaviour. *Interacting with Computers*, 20(1), 1–16. <https://academic.oup.com/iwc/article-abstract/20/1/1/845963?redirectedFrom=fulltext>
- Parmar, D., Olafsson, S., Utami, D., Murali, P., & Bickmore, T. (2024). Designing empathic virtual agents: manipulating animation, voice, rendering, and empathy to create persuasive agents. *Journal on Multimodal User Interfaces*, 18(2), 223–237. <https://link-springer-com.proxy.uwasa.fi/content/pdf/10.1007/s10458-021-09539-1.pdf>
- Palinkas, L.A., Horwitz, S.M., Green, C.A. *et al.* Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Adm Policy Ment Health* 42, 533–544 (2015). <https://doi.org/10.1007/s10488-013-0528-y>
- Palmberger, M., Gingrich, A., & Flick, U. (2014). *Qualitative Comparative Practices: Dimensions, Cases and Strategies*. United Kingdom: SAGE Publications, Limited. <https://doi.org/10.4135/9781446282243.n7>
- Peattie, K., & Belz, F. M. (2010). Sustainability marketing – An innovative conception of marketing. *Marketing Review St. Gallen*, 27(5), 8–15. <https://doi.org/10.1007/s11621-010-0085-7>
- Rese, A., Ganster, L., & Baier, D. (2020). Chatbots in retailers' customer communication: How to measure their acceptance? *Journal of Retailing and Consumer Services*, 56, 102176. <https://doi.org/10.1016/j.jretconser.2020.102176>

- Schuetzler, R. M., Grimes, G. M., & Scott Giboney, J. (2020, July 2). The impact of chatbot conversational skill on engagement and perceived humanness. *Journal of Management Information Systems*. <https://doi.org/10.1080/07421222.2020.1790204>
- Seeger, A-M., Pfeiffer, J., & Heinzl, A. (2021). Texting with Humanlike Conversational Agents: Designing for Anthropomorphism. *Journal of the Association for Information Systems*, 22(4). <https://aisel.aisnet.org/jais/vol22/iss4/8>
- Shams, G., Kim, K. K., & Kim, K. (2024). Enhancing service recovery satisfaction with chatbots: The role of humor and informal language. *International journal of hospitality management*, 120, 103782. <https://doi.org/10.1016/j.ijhm.2024.103782>
- Sheehan, B., Jin, H. S., & Gottlieb, U. (2020). Customer service chatbots: Anthropomorphism and adoption. *Journal of Business Research*, 115, 14–24. <https://doi.org/10.1016/j.ibusres.2020.04.030>
- Song, M., Zhu, Y., Xing, X., & Du, J. (2024). The double-edged sword effect of chatbot anthropomorphism on customer acceptance intention: The mediating roles of perceived competence and privacy concerns. *Behaviour & Information Technology*, 43(15), 3593–3615. <https://doi.org/10.1080/0144929X.2023.2285943>
- Stacey, K., & Vincent, J. (2011). Evaluation of an electronic interview with multimedia stimulus materials for gaining in-depth responses from professionals. *Qualitative Research*, 11(5), 605–624. <https://doi.org/10.1177/14687941111413237>
- Statistics Finland. (2023). *Use of information and communications technology by individuals*. <https://stat.fi>

- Sun, B., Zhang, Y., Meng, X., & Zhang, Z. (2025). *Social class, public self-awareness, and consumers' heterogeneous attitude to AI machine anthropomorphism*. *Current Psychology*, 44, 10561–10578. <https://doi.org/10.1007/s12144-025-07872-2>
- Toader, D.-C., Boca, G., Toader, R., Măcelaru, M., Toader, C., Ighian, D., & Rădulescu, A. T. (2020). The effect of social presence and chatbot errors on trust. *Sustainability*, 12(1), 256. <https://doi.org/10.3390/su12010256>
- Tran, S., Lu, H., Slaughter, I., et al. (2025). Understanding privacy norms around LLM-based chatbots: A contextual integrity perspective. *arXiv*. <https://arxiv.org/abs/2508.06760>
- Traub, J., Weber, A., & Weinhardt, C. (2023). Perception of human characteristics in an AI chatbot acting as on-the-job coach [Preprint No. 4647255]. SSRN. <https://doi.org/10.2139/ssrn.4647255>
- Tversky, A., & Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124–1131. <https://doi.org/10.1126/science.185.4157.1124>
- University of Vaasa. (n.d.). Guidelines for writing theses. University of Vaasa <https://www.uvasa.fi/en/students/writing-guidelines-and-plagiarism-detection/writing-guidelines>
- Van Doorn, J., Mende, M., Noble, S. M., Hulland, J., Ostrom, A. L., Grewal, D., & Petersen, J. A. (2017). Domo arigato Mr. Roboto: Emergence of automated social presence in organizational frontlines and customers' service experiences. *Journal of Service Research*, 20(1), 43–58. <https://doi.org/10.1177/1094670516679272>
- Waytz, A., Cacioppo, J., & Epley, N. (2010). Who sees human? The stability and variability of anthropomorphism. *Perspectives on Psychological Science*, 5(3), 219–232. <https://doi.org/10.1177/1745691610369336>

- Waytz, A., Morewedge, C. K., Epley, N., Monteleone, G., Gao, J. H., & Cacioppo, J. T. (2010). Making sense by making sentient: Effectance motivation increases anthropomorphism. [\(PDF\) Making Sense by Making Sentient: Effectance Motivation Increases Anthropomorphism](#)
- Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review*, 92(4), 548–573. <https://doi.org/10.1037/0033-295X.92.4.548>
- Weinmann, M., Schneider, C., & vom Brocke, J. (2016). Digital nudging. *Business & Information Systems Engineering*, 58(6), 433–436. <https://doi.org/10.1007/s12599-016-0453-1>
- Weurlander, A. (2023). *Chatbots and online customer experience – Finnish consumers’ perceptions towards chatbots in e-commerce retail: A qualitative study* (Master’s thesis). Aalto University. <https://urn.fi/URN:NBN:fi:aalto-202308134765>
- White, K., Habib, R., & Hardisty, D. J. (2019). How to SHIFT consumer behaviors to be more sustainable: A literature review and guiding framework. *Journal of Marketing*, 83(3), 22–49. <https://doi.org/10.1177/0022242919825649>
- Xu, Y., Zhang, J. and Deng, G. (2022), “Enhancing customer satisfaction with chatbots: the influence of communication styles and consumer attachment anxiety”, *Frontiers in Psychology*, Vol. 13, 902782, doi: <https://doi.org/10.3389/fpsyg.2022.902782>.
- Yanxia, C., Zhu, S., & Xiao, Y. (2024). A meta-analysis of the effect of chatbot anthropomorphism on the customer journey. *Management Information Systems Quarterly*. <https://doi.org/10.1108/mip-03-2023-0103>
- Zlotowski, J., Proudfoot, D., Yogeewaran, K., & Bartneck, C. (2015). Anthropomorphism: Opportunities and Challenges in Human–Robot

Interaction. *International Journal of Social Robotics*, 7(3), 347–360.
<https://doi.org/10.1007/s12369-014-0267-6>

Appendices

Appendix 1 Chatbot Simulation Dialogue 1

Scenario:

A customer received a damaged smartphone after online delivery.

Chatbot Dialogue:

Chatbot:

Hello! I'm. Thank you for contacting us today
I hope you are doing well. How can I assist you?

Customer:

I received my phone today, but it is damaged. I am very upset.

Chatbot:

Oh no! I am really sorry to hear that. I completely understand how disappointing this must feel, especially when you were waiting for your new phone.

Please don't worry — I will do my best to solve this for you quickly. Could you kindly share your order number?

Customer:

ORD-45821.

Chatbot:

Thank you so much. I checked your order details.

Could you please send a photo of the damaged phone? That will help me process your request faster.

Customer:

Yes, I sent it.

Chatbot:

Thank you

I truly apologize again for the inconvenience caused.

You are eligible for:

1. A brand-new replacement
2. A full refund

Please tell me which option would make you more comfortable.

Customer:

I want a replacement.

Chatbot:

Certainly! I have successfully arranged the replacement for you.

You will receive:

- A confirmation message shortly
- Free return pickup service
- Your new phone within 3–5 working days

Thank you for your patience and understanding. We truly value you as our customer



Is there anything else I may help you with today?

Customer:

No, thank you.

Chatbot:

You are always welcome! Have a wonderful day

Appendix 2 Chatbot Simulation Dialogue 2

Scenario:

A customer received a damaged smartphone after online delivery.

Chatbot Dialogue

Chatbot (Ella):

Hi there, I'm Ella. How may I help you today?

Customer:

I received a damaged phone in my order.

Chatbot (Ella):

I am sorry for the inconvenience. Please provide your order number so I can check the issue.

Customer:

ORD-45821.

Chatbot (Ella):

Thank you. I found your order.

Could you briefly describe the damage?

Customer:

The screen is cracked.

Chatbot (Ella):

Understood. Thank you for the information.

You are eligible for a replacement or refund under our return policy.

Please choose one option:

1. Replacement
2. Refund

Customer:

Replacement.

Chatbot (Ella):

Your replacement request has been submitted successfully.

You will receive:

- A return label by email
- Pickup instructions
- A replacement delivery within 3 business days

If you have additional questions, I will be happy to assist you.

Customer:

No.

Chatbot (Ella):

Thank you for contacting customer support. Have a good day.

Appendix 3 Interview Guide

Thesis title: “Consumer Attitudes toward Retail Chatbots based on Anthropomorphic Attributes: A Finland Bangladesh Comparison.”

Interview Duration: Approximately 30-40 minutes.

Target Respondents: Adults in Finland or Bangladesh who have interacted with retail chatbots for online shopping or customer service.

Declaration: Before we begin, I would like to inform you that this interview will be video-recorded for research purposes. The recordings will be treated confidentially, and your identity will remain anonymous in all research reports.

Interview Questions:

SECTION 1: Background

1. Can you tell me where are you from?
2. What is your age group?
 - 18–24
 - 25–34
 - 35–44
 - 45–54
3. Highest Level of Education
 - Secondary School
 - Vocational Education
 - Bachelor's Degree
 - Master's Degree
 - Doctoral Degree
 - Other
4. What is your current occupation or profession?

- Student
 - Employed full-time
 - Employed part-time
 - Self-employed
 - Unemployed
 - Retired
 - Other
5. How often do you shop online?
 6. Which platforms or websites do you usually use for online shopping?
 7. Have you ever interacted with chatbots while shopping online or using customer service?
 8. How frequently do you use them/chatbots?
 9. What do you typically use them for?
 10. How would you describe your overall experience with chatbot?

SECTION 2: First Simulation

(Show Simulation 1)

1. What were your first impressions of this chatbot interaction?
2. What did you like about the chatbot's responses, if anything?
3. Any positive aspects?
4. Was there anything you disliked about the chatbot's responses?
5. Any negative aspects?
6. How would you describe the chatbot overall?
7. How satisfied would you be if this was a real customer service interaction?
Why?
8. Did the chatbot solve the customer's problem properly? Why or why not?

SECTION 3: Second Simulation

(Show Simulation 2)

1. What were your first impressions of this chatbot interaction?
2. What did you like about the chatbot's responses, if anything?
3. Any positive aspects?
4. Was there anything you disliked about the chatbot's responses?
5. Any negative aspects?
6. How would you describe the chatbot overall?
7. How satisfied would you be if this was a real customer service interaction?
Why?
8. Did the chatbot mention itself by name, does it influence your impression of the interaction?
9. Did the chatbot handle the customer's problem efficiently? Why or why not?

Probable Questions (We will use them if responses do not come naturally)

- What did you think about the chatbot's greeting?
- How would you describe the chatbot's tone of communication?
- Did the chatbot seem understanding?
- Did the chatbot appear empathetic? Why?
- Did the chatbot seem responsive to the customer's problems? Why?
- Did any part of the interaction feel human-like? Which parts?
- Did the chatbot seem reliable or trustworthy?
- Why? Or make you feel respected/valued
- What did you think about the way the chatbot ended the conversation?

We will use the same questions for both simulation plus some additional questions for second simulation:

- What did you think about the chatbot introducing itself by name?
- Did the chatbot have a name that influences your perception of it?
- Did the name make the chatbot seem more human-like, friendly, or trustworthy? If so then could you say how and why?

SECTION 4: Comparison of the Simulations

1. Which chatbot interaction did you prefer overall? Why?
2. How would you describe each chatbot overall? Specially, did you notice any differences between the two chatbots?
3. What features or characteristics stand out to you in each chatbot? If so, Why did those features catch your attention?
4. How did you feel about those features? Did they influence your opinion of the chatbot? Why?
5. Were any of the chatbot features particularly helpful or unnecessary? Which ones? Why?
6. Which features from the two chatbot interactions would encourage you to use a similar chatbot again in the future? Why?

7. Which features would discourage you from using a chatbot again?

8. Did any chatbot seem like you of a human being?
 - Which one?
 - What specifically made it seem human-like?
9. Which chatbot felt more human-like? Why?
10. Did any human-like characteristics influence your preference between the two chatbots? If so, then how?
11. Did either chatbot feel too human-like or make you uncomfortable?
 - Which one?
 - What specifically caused that feeling?
12. Which chatbot seemed more professional or efficient? Why?

Section 5: Chatbot Preferences and Previous Experiences

1. What kind of chatbot style do you personally prefer and why?
 - What characteristics do you prefer that style?
 - Can you relate this preference to either of the simulations?

2. Do you remember a chatbot interaction that you considered very positive?

- Could you describe the situation?
- What made that experience positive?
- How did the chatbot interact with you? How did it make you feel?
- Did the chatbot seem understanding/reliable or empathetic?
- Did it seem human-like in any way?

3. Do you remember a chatbot interaction that you considered negative or frustrating?

- Could you describe the situation?
- What made that experience negative?
- How did the chatbot communicate with you? How did it make you feel?
- What do you think how would have the chatbot improved the interaction?

4. Thinking about the two simulations and your previous experiences, which chatbot style would you prefer in future online shopping interactions?

- Why?
- What specific characteristics are most important to you?

Appendix 4 Use of AI

In this thesis writing, we used ChatGPT (GPT-5, October 2025 version) created by open AI as an assistant in certain writing and structuring procedures. The AI served to refine the language, make it clearer, and come up with initial outlines, summarise background literature, and make the text easier to read in general. Everything that was created with the help of ChatGPT was carefully checked, researched, and edited by us, so all the content that we presented in this thesis is in any way our own idea.