

Investigating Generation Z's perceptions of AI customer service representatives in organizations

by

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Abstract

The evolution of Artificial Intelligence (AI) is gradually transforming the dynamics of corporate communication, as many US organizations have integrated it into their strategies. However, despite AI's demonstrated value in organizations, concerns persist about customers' perceptions and experiences regarding AI's ability to replicate human empathy, raising questions about its suitability as a customer service representative. The existing literature revealed that customers value AI for its speed and consistency, while others suggest that customers often perceive AI as impersonal or robotic, lacking empathy and contextual understanding. However, they often treat consumers as a homogeneous group, paying little attention to how specific age groups interpret and respond to these interactions. Thus, this study aims to fill the gap by exploring Gen Z's perceptions of AI customer service, given their digital inclinations, to provide richer insights into AI in communication. The study is grounded in two theoretical frameworks: the Technology Acceptance Model (TAM) by Davis (1989) and Computers Are Social Actors (CASA) by Reeves & Nass (1996), which will assess both the functional and social dimensions of how Gen Z perceives AI customer service representatives. TAM is applied to explain the usefulness, ease of use, attitude, and behavioral intention towards AI customer service. At the same time, CASA adds depth by exploring how Gen Z treats AI as social actors, responding to them with human-like expectations of trust and communication. This study employed an online survey of Gen Z from Kansas State University. TAM variables, including Perceived Usefulness and Ease of Use, influence attitudes and Behaviors, specifically measuring how cognitive factors shape perception. In contrast, CASA explains emotional factors and social presence, the relational concerns Gen Z has about AI. Preliminary findings suggest that functional perceptions, such as usefulness and social perceptions, including social presence, empathy, and cultural factors, collectively shape Generation Z's responses to AI customer service representatives. These findings provide in-

depth insights into the factors influencing the interaction between Gen Z and AI customer service representatives, as well as the implications of this interaction on organizational communication.

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Dedication

This thesis is dedicated to God. The only one who makes this possible. He renews my strength with enablement that is shaping me into who I am today.

Chapter 1 - Introduction

Artificial intelligence has become the first “person” we interact with when booking an airline, making banking inquiries, or reaching out to other brands. Although Schuett (2023) argued that there is no consensus definition of AI, given its purposes in the corporate world, it can be described as the ability of machines to perform human-like cognitive tasks (Benbya et al., 2020). Recent evidence indicates an increase in AI integration across business operations. For example, the 2025 AI Index Report by Maslej et al. (2025) shows that 78% of organizations reported using AI in 2024, up from 55% the previous year. Organizations are adopting AI tools to improve operational efficiency and job satisfaction in internal communication and customer service (Nah et al., 2020). The constant growth of AI integration in organizations (Banks, healthcare providers, etc.) has therefore transformed organizational communication by enabling fast operation.

McElheran et al. (2024) note that AI use in the U.S., especially in firms, has rapidly grown, and Chen and Prentice (2025) find that many organizations are integrating AI into customer-experience functions. Recently, Papa John’s collaborated with Google Cloud to integrate AI into its pizza ordering process, enabling more personalized, optimized customer interactions (Papa John’s International, 2025). Overall, AI assistance has increased customer support agents’ productivity by 10-40% (Noy & Zhang, 2023). These findings indicate the operational efficiency that AI offers organizational communication.

Despite these advancements, concerns remain about AI’s ability to match the empathetic approach of human representatives. AI customer service representatives are efficient at handling routine queries and are cost-effective for the organization; however, customer satisfaction often hinges on emotional intelligence, adaptability, and trust. Chaves et al. (2022) argue that AI can streamline interactions, but customers frequently perceive them as impersonal or robotic,

especially in emotionally charged or complex scenarios. Zhao et al. (2022) also found that customers are dissatisfied with the poor problem-solving abilities, lack of personalization, and limited interpersonal interaction of AI customer service. This suggests that customers value AI for its speed and consistency (Huang & Rust, 2021), whereas Adam et al. (2021) argue that it often falls short when empathy and contextual understanding are required. These mixed findings highlight the need for further research to assess the effectiveness of AI customer representatives by examining consumers' perceptions.

Understanding consumers' perceptions is necessary because their experiences impact organizations' reputations, loyalty, and market presence. Most studies have focused on the organizational advantages of AI and the mixed perceptions of AI as a customer service agent, particularly regarding trust, usefulness, and satisfaction in service interactions. However, they often treat the public/consumer as a homogeneous group, paying little attention to how specific consumer groups interpret and respond to these interactions. This overlooks the generational differences in how AI customer service is perceived, leaving a knowledge gap in the impact of demographics. Thus, this study aims to fill the gap by exploring Gen Z's perception of AI customer service, given their digital inclinations.

Generation Z (Gen Z), individuals born between 1997 and 2012, represents an important demographic believed to have a better understanding of AI than other age groups. Gen Z is not a novice; they interact with AI frequently (Chan & Lee, 2023). Gen Z enjoys interacting with AI services due to their habitual smartphone use (Vitezić & Perić, 2021). According to these views, studying Gen Z's perceptions of AI as a customer service tool would yield more assertive and richer insight into its use. Studying their perceptions is specifically relevant for organizations that

design and implement AI communication tools in their strategies and contributes to understanding how consumers, especially Gen Z, perceive and interact with these technologies.

Therefore, this study aims to explore how Gen Z evaluates AI customer service and examine the implications of these perceptions on organizational communication. The study is grounded in two theoretical frameworks: the Technology Acceptance Model (TAM) by Davis (1989) and Computers Are Social Actors (CASA) by Reeves and Nass (1996), which aim to assess the functional and social dimensions of how people perceive AI representatives. TAM explains users' acceptance of new technologies in terms of perceived usefulness and ease of use. At the same time, CASA points to how people treat AI systems as social actors, responding to them with human-like expectations of trust and communication. Using their constructs, the study centers around two overarching research questions:

RQ1: How do perceived usefulness and perceived ease of use shape Generation Z's attitudes and behavioral intentions toward AI customer service representatives?

RQ2: How do perceived empathy, social presence, and cultural orientation influence Generation Z's attitudes and trust in AI customer service interactions?

Significance of the Study

This research addresses a timely and critical gap in the AI and communication literature by providing empirical evidence on Gen Z's perceptions of AI in customer service representatives and integrating TAM and the CASA framework with customer experience research.

Also, the findings of this study have value for organizations that adopt AI in customer service. As companies integrate AI to improve efficiency and offer 24/7 service, it becomes a face of the brand, and customer experience has implications for organizational reputation and credibility.

The study is divided into four sections. In the next section, conceptual review, literature, and the theoretical framework will be carefully discussed. The third section outlines the study's methodology, and the data will be presented and discussed in the final section

Chapter 2 - Literature Review

To explore Gen Z's perception of an AI customer service representative, it is necessary to understand the AI customer service representative, Gen Z, and AI adoption. Integration of the Technology Acceptance Model and the Concept of Computers as Social Actors. Therefore, this literature review will be divided into sections to touch on these areas.

Artificial Intelligence

Artificial Intelligence is a computer system designed to perform tasks that typically require human intelligence, such as understanding language, recognizing patterns, and engaging in conversations through natural language processing, machine learning, and predictive analytics (Huang & Rust, 2021). AI helps to improve communication speed, efficiency, and collaboration. For example, during the COVID-19 pandemic, the rise of remote work led to a significant increase in reliance on digital communication tools. A study by Alkhateeb et al. (2023) suggests that AI offers several advantages in communication, including enhancing clarity, streamlining scheduling, and providing translation services for individuals who speak different languages.

Artificial Intelligence as a Customer Service Agent

An AI customer service agent refers to technologies that enable automated interaction between organizations and individuals. As noted by Daughterty and Wilson (2018), organizations are increasingly adopting AI technologies, including conversational agents and voice systems, to enhance delivery. In this study, these systems are classified by interaction mode into four types: chatbots, virtual assistants, AI phone systems, and live chat applications. Chatbots are textual conversation agents that respond to user queries (Xu et al., 2017). Virtual assistants are more advanced systems that offer information or perform tasks through voice or text interaction (Jurafsky & Martin, 2023), customer service bots, and AI agents, to support

business processes and enhance customer interaction. AI phone systems, often called interactive voice response systems, use automated voice prompts to interact with users and route calls (Jurafsky & Martin, 2023). While live chat applications maintain a conversational interface (Adam et al., 2021).

According to Rose (2025), the journey of AI as a customer service agent began with ELIZA, developed in 1960 by Joseph Weizenbaum at MIT. ELIZA simulated a psychotherapist's conversation using pattern recognition and simple scripting. This paved the way for contemporary chatbots that use Natural Language Processing (NLP) and machine learning to engage in more human-like interactions. In response to the development, organizations began deploying Chatbots on websites to assist, enhancing customer engagement and operational efficiency through the internet and instant messaging in the 1990s.

Progressively, AI not only responds to customers' inquiries but also proactively engages them. Arguably, advancements in sentiment analysis enable AI, such as chatbots and visual assistants, to detect and adapt to customer emotions, thereby providing a more personalized and empathetic service experience (Britt, 2023). Lv et al.'s (2022) findings reveal that AI can perform service recovery in hospitality settings by providing empathetic responses, thereby encouraging customers to continue using the service. Agarwal et al. (2020) and McKinsey and Company (2020) also found that AI enables proactive, personalized interactions, thereby increasing customer engagement and satisfaction while reducing operational costs, especially in industries such as banking.

However, consumer perception of AI is mixed. Galoni et al. (2022) and Martlenz (2023) note that while personalization and empathy can enhance satisfaction, their absence can lead to negative experiences. Harrison (2025) critiques the overreliance on AI in customer service,

arguing that it often results in impersonal, inefficient service. Although AI can manage routine tasks, human empathy remains crucial for resolving complex issues.

Generation Z and AI Technology Adoption

Generation Z (Gen Z) is an age group born between 1997 and 2012, characterized by technological savvy and digital fluency due to technological innovation, social trends, and cultural changes (Wajdi et al., 2024). A study by Seemiller and Grace (2017) highlights how their distinct digital behavior and value system shape their communication preferences, such as an instant feedback culture and personalized communication, which, in turn, shape their perceptions, learning styles, and interpersonal communication patterns.

Although Gen Z is a digital native, they are not uncritically accepting of AI; they are concerned about trust and non-human decision-making (Dewalska-Opitek et al., 2024). A Deloitte (2024) survey emphasizes that Gen Z is wary of AI's impact despite its frequent use. For example, they worry about issues like accuracy and displacement. Despite these findings, which explain Gen Z as being technologically friendly with AI and more likely to accept it than other age groups, there are also elements of skepticism worth noting in their perceptions of AI customer service.

This study focused on Kansas State University students as a representative sample of Gen Z. According to K-State Institutional Research's Undergraduate Student Demographics, most undergraduates in recent years have been between the ages of 18–24, with the largest groups being 19 and under and 20–24. These age groups are considered active digital and AI technologies users in their academic and personal lives. This familiarity with AI interaction makes them an appropriate population for exploring Gen Z perceptions of AI customer service representatives. To explain this, the Technology Acceptance Model has proven to be a helpful framework.

Technological Acceptance Model

The Technology Acceptance Model, developed by Davis (1989), explains and predicts users' behavior toward technology. It emphasizes perceived usefulness and perceived ease of use as key variables influencing attitudes and behavioral intentions towards technology. Yi and Choi (2023) argue that TAM helps assess how user expectations and experiences affect AI technology acceptance.

The Technology Acceptance Model explains the cognitive and perceptual factors influencing how individuals perceive and accept AI customer service agents. Perceived usefulness refers to an individual's belief that an AI customer service agent enhances promptness, efficiency, and accuracy. Wang et al. (2023) found that usefulness significantly influenced customer trust and satisfaction, suggesting people are likely to accept AI based on its usefulness. Secondly, perceived ease of use determines public acceptance of AI as a customer service agent. Customers are likely to embrace intuitive, user-friendly AI chatbots. Ma et al. (2025) demonstrated that ease of use significantly influenced the adoption of ChatGPT.

Thirdly, perceived usefulness and ease of use shape Attitudes towards AI. Choi (2023) confirmed that positive attitudes enhance interaction and reduce resistance to AI. Lastly, Behavioral Intention suggests that if customers perceive AI as helpful and easy to use, they are more likely to accept it repeatedly. Therefore, a positive attitude or belief is important for customers to feel comfortable interacting with a non-human representative.

The Technology Acceptance Model (TAM) serves as a foundational framework for understanding how factors such as normative beliefs, perceived usefulness, and ease of use influence customers' adoption of digital technologies. Wang et al. (2023) applied TAM in an e-commerce context and found that subjective norms positively impact perceived usefulness and

ease of use, while trust significantly influences AI usage. Other prior TAM surveys identify common factors, such as subjective norms, perceived usefulness, ease of use, and security, that promote acceptance of AI customer service (Zhang et al., 2024; Alsyouf et al., 2023; Ezeah et al., 2019). Though TAM provides a testable explanation of how AI technologies are accepted based on perceived usefulness and ease of use, there is limited attention to emotional or social factors that may also influence Gen Z's perceptions of AI use. Therefore, this necessitates incorporating Computers Are Social Actors (CASA) as a supporting perspective.

Computers Are Social Actors (CASA)

Computers Are Social Actors (CASA) is a paradigm proposed by Reeves and Nass (1996) that explains how humans instinctively treat computers and other technologies as human, especially when these technologies mimic human behavior through voice, language, and interactivity. While TAM helps understand the cognitive factors, CASA examines how social cues influence Gen Z's perceptions of AI. When AI technologies use emotional expressions and conversational tone, users apply social norms such as empathy and politeness. However, AI's inability to express genuine empathy or personalized interaction can lead to adverse reactions, such as distrust and frustration (Nass & Moon, 2000).

Song et al. (2022) applied the CASA paradigm to assess how different service agents affect their perceptions. They found that users prefer human interaction and view AI agents as less competent and trustworthy. Supporting this is a study by De Kervenoael et al. (2024) that examined the impact of social Internet of Things service robots on consumer experience in retail settings. The study found that word of mouth, promotional experience, and relationship quality influence repeat purchase intentions. Noting this, AI robots often lack the quality of relationships that consumers desire. There are instances in which AI customer service uses social cues, but

studies have shown that it does not always meet customer needs. For example, Alberts et al. (2024) examined instances in which AI used social cues but led to a negative user experience. Based on these arguments, CASA argues that psychological factors such as empathy, social presence, and trust are determinants of consumers' perceptions of AI compared to human customer service.

Implications of TAM and CASA on Gen Z Perception of AI Organizational Representative

The Technology Acceptance Model by Davis (1989) is a framework that explains the cognitive perspectives (rationalizable factors) that influence public acceptance of AI technology based on two primary constructs: the perceived usefulness and ease of use that influence attitudes towards use, behavioral intention, and the actual use of AI customer service agents. The CASA paradigm, however, offers a social-emotional perspective, asserting that humans tend to respond to computers and AI using the same social norms and expectations they apply to humans.

Perceived usefulness (TAM) is enhanced when AI exhibits human-like traits, such as empathy (CASA). Perceived Ease of Use (TAM) can be increased if the interaction aligns with social norms, such as quality communication and relationships. Attitudes towards use (TAM) are influenced by positive social interactions with AI, such as friendly tone and helpful behavior. Then, the Behavioral Intention is influenced by emotional satisfaction and social presence.

Applying TAM and CASA would provide a strong theoretical foundation, drawing on cognitive and social-emotional perspectives to explain how Gen Z's perceptions of AI customer service are shaped. Cognitive and emotional factors inspire technology interaction. TAM constructs would examine cognitive factors (usefulness and ease of use). At the same time, CASA, the supporting framework, would understand how emotional factors (empathy and social presence) influence Gen Z's perception of AI as customer service. Thus, the study explores the variables of

perceived usefulness, ease of use, empathy, social presence, attitudes, trust, cultural orientation, and behavior towards AI as a customer service representative.

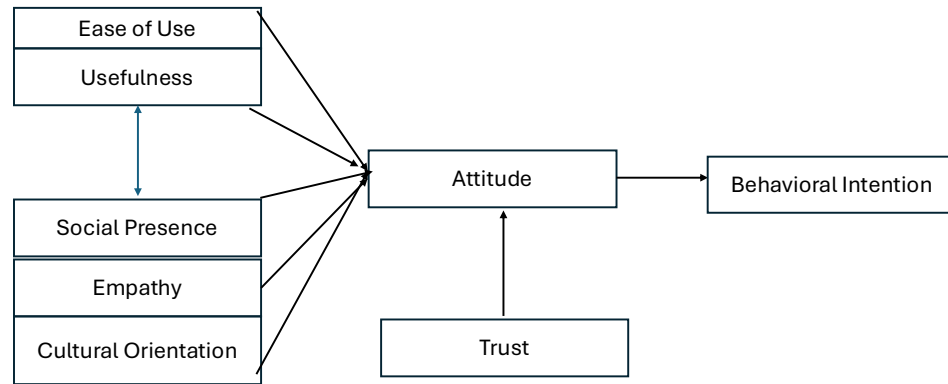


Figure 1. Hypothesized Conceptual Model

The hypothesized conceptual model posits that both technological and social factors influence users' attitudes, with trust in AI customer service representatives strengthening these attitudes, which, in turn, shape behavioral intention.

Perceived Usefulness (PU; Independent Variable – TAM)

Perceived Usefulness is a construct in the Technology Acceptance Model (TAM) that explains an individual's belief that interacting with AI enhances task performance (Davis, 1989). Previous studies have consistently shown that when individuals perceive AI technology as applicable, they are more likely to develop a positive attitude and intention to use it (Venkatesh & Davis, 2000). In the context of AI customer service, usefulness will be measured to reflect how effectively AI representatives provide accurate, quick, and relevant solutions. This leads to a part

of the first research question (RQ1): How does the perceived usefulness influence Gen Z's attitude toward AI customer service?

Perceived Ease of Use (Independent Variable – TAM).

Perceived ease of use refers to the degree to which a person believes that interacting with AI will be effortless (Davis, 1989). Research indicates that technologies perceived as intuitive and straightforward tend to lead to higher satisfaction and adoption intentions (Lv et al., 2022). Considering Gen Z's experience with mobile apps and digital assistants, they may have high expectations for effortless interaction. This consideration leads to the second part of the research questions (RQ1): To what extent does the perceived ease of use of an AI customer service representative influence Gen Z's behavioral intention to use them?

Perceived Empathy (Independent Variable - CASA).

Perceived empathy is a construct in CASA that describes how people apply human social norms to interactions with AI. The extent to which customers feel that AI understands and appropriately responds to their emotions (Ciechanowski et al., 2019). Studies on conversational AI and chatbots argue that when AI agents communicate in ways that acknowledge users' emotions, users report higher engagement and more positive evaluations of the technology (Bickmore & Picard, 2005; Følstad & Brandtzæg, 2017). More recent literature also suggests that empathetic conversational behavior can improve an individual's perceptions of interaction quality and perceived helpfulness, both of which contribute to positive attitudes towards AI systems (Liu et al., 2025; Sanjeeva et al., 2024).

The findings suggest that empathetic communication is a major determinant of users' evaluations of conversational technologies. AI systems that show empathy and acknowledge user concerns tend to generate more positive perceptions of the interaction. Thus, the research question

(RQ2) asks: How does perceived empathy influence Gen Z's attitude towards an AI Customer Service Representative?

Perceived Social Presence (Independent Variable – CASA)

Social Presence is another construct from CASA, explaining the extent to which individuals feel an AI customer is “socially present”, as if interacting with a human being. Studies by Gefen and Straub (2004) reveal that higher perceived social presence can enhance users' attitudes towards digital systems by making interactions feel more engaging and socially meaningful. Research further shows that social presence can strengthen trust and improve users' overall perceptions of AI-mediated service encounters (Cyr et al., 2007; Go and Sundar, 2019). This suggests that when AI customer service representatives convey a greater sense of social presence through conversational language, responsiveness, and human-like interaction, individuals are more likely to perceive them as responsive, leading to more positive attitudes and greater trust in the system. This construct helps to understand AI's ability to relate to human needs of customers and how this shapes their experience while interacting with AI. Hence, the second research question (RQ2): How does the perceived social presence of AI agents influence Gen Z students' trust in and satisfaction with customer service experience?

Attitude towards AI customer Representatives (Moderator Variable).

Attitudes represent individuals' overall evaluative feelings towards AI, either positive or negative (Fishbein & Ajzen, 1975). In TAM, attitude mediates the relationship between perceived usefulness and ease of use, influencing behavioral intention.

Behavioral Intention to Use (Dependent Variable – TAM Outcome).

Behavioral intention is defined as the strength of an individual's intention to use technology in the future (Venkatesh & Davis, 2000). This construct completes the logic of the TAM model: if

AI customer service is seen as helpful, easy to use, and socially responsive, users are more likely to continue using it. In this study, behavioral intention refers to the likelihood that Gen Z users will choose AI agents for customer service tasks, encompassing both their cognitive evaluations and emotional experiences.

Trust (Dependent Variable)

Trust in this context is the belief that a system is reliable, competent, and acts in the best interests of users under uncertainty (Gefen, 2000; McKnight et al., 2002). Human-AI interaction shows that social features and communication behaviors embedded in an AI system can influence users' perceptions of trustworthiness (Lankton et al., 2015). Based on existing studies, trust is a significant factor influencing technology acceptance in customer service (Glikson & Woolley, 2020). Individuals apply human trust heuristics to algorithmic systems, and trust mediates attitudes towards automated decision-making systems (Araujo, 2018). In the context of this study, trust measures whether Gen Z's adoption depends not only on usefulness but also on perceived reliability and ethics. This provides additional variance of factors shaping perception beyond TAM and CASA.

Cultural Dimension (Independent Variable)

Cultural orientation refers to the shared values, beliefs, and norms that shape how individuals perceive and interact with technology (Yoo et al., 2011). One of the most widely used frameworks for understanding cultural differences is Geert Hofstede's cultural dimensions theory. According to Hofstede's cultural framework, cultural orientations such as power distance, collectivism, and communication norms influence how people perceive authority, cooperation, and interaction patterns in social contexts (Hofstede, 2001). These dimensions influence how individuals interpret communication cues, respond to uncertainty, and develop trust in AI

technologies. Cultural values influence their perceptions of trustworthiness and acceptance. For example, individuals from collectivist cultures may place great emphasis on relational cues such as empathy and social presence, while those from individualistic cultures may prioritize efficiency and usefulness. As a result, cultural orientation provides an important lens for understanding variations in users' responses to AI technologies.

Research suggests that individuals' cultural value orientations influence their perceptions of trustworthiness and acceptance of technology, particularly in communication systems where social norms shape expectations for responsiveness, respect, and cooperation (Gefen & Straub, 2004; Srite & Karahanna, 2006; Yoo et al., 2011). In technology adoption research, cultural orientation has been shown to influence constructs within models such as the Technology Acceptance Model (TAM), particularly perceived usefulness, perceived ease of use, and behavioral intention (Venkatesh et al., 2003; E. M. Rogers, 2003). Additionally, from the perspective of the Computers Are Social Actors (CASA) framework, cultural orientation may shape the extent to which users attribute human-like qualities, such as empathy, social presence, and trust, to AI technologies (Clifford Nass & Byron Reeves, 1996). For example, users from cultures with high uncertainty avoidance may rely more heavily on trust when interacting with AI, while those from relationally orientated cultures may be more sensitive to perceived empathy and social cues.

Despite its importance, cultural orientation is often underexplored in studies of AI communication, particularly among diverse populations such as Gen Z users (Dwivedi et al., 2021). Meanwhile, it may shape individuals' perceptions of AI technology as reliable and trustworthy actors within service environments. Therefore, incorporating it into this study provides

a more comprehensive understanding of how cultural differences influence Gen Z attitudes and behavioral intentions toward AI communication service representatives.

Sociodemographic Variables

Sociodemographic data capture demographic and experiential features that may influence perceptions of technology. Previous studies have found gender differences in technology adoption: men rely more on usefulness, while women are more influenced by ease of use (Venkatesh & Davis, 2000). Also, prior exposure to and familiarity with AI technology predicted positive attitudes toward AI (Schepman & Rodway, 2020; B. Zhang & Dafoe, 2019). Based on these, it is predicted that gender, frequency, and career path may influence Gen Z's overall perception of AI customer service representatives.

Hypotheses

Building on the TAM and CASA frameworks, this study examines how functional and social characteristics of AI customer service representatives shape Generation Z's perceptions. Previous findings reveal that individuals evaluate technologies based on perceived usefulness and ease of use, as well as on social cues and other factors, such as trust, that emerge during AI-human interactions. To address these research questions, from a functional perspective, how do perceived usefulness and perceived ease of use shape Generation Z's attitudes and behavioral intentions toward AI customer service representatives? Secondly, from a relational perspective, how do perceived empathy, social presence, and cultural orientation influence Generation Z's attitudes and trust in AI customer service interactions? The following hypotheses are proposed:

H1: Perceived usefulness will positively predict Generation Z's attitude towards AI customer service.

H2: Perceived ease of use will positively predict Generation Z's attitude towards AI customer service representatives.

H3: Perceived empathy will positively predict Generation Z's attitude towards AI customer service representatives.

H4: Perceived social presence will positively predict trust in AI customer service representatives.

Chapter 3 - Methodology

Research Design

A quantitative survey method will be employed in this study due to its importance in measuring the perceptions, attitudes, and behaviors of Gen Z consumers towards AI customer service representatives (Podsakoff et al., 2003). Surveys are particularly effective for identifying patterns, relationships, and predictive models through standardized instruments (Creswell, 2014). Babbie (2010) also highlights the efficiency of survey research for gathering data from large populations and for explaining complex phenomena. For example, Hoffman et al. (2011) used surveys in a meta-analysis to quantify individual traits and correlate them with leadership effectiveness.

Given the TAM and CASA frameworks (Davis, 1989; Nass, 1996), a survey can collect large amounts of data on Gen Z's perceptions of AI customer service, including perceived usefulness, ease of use, trust, and empathetic responses. This method offers insight into Gen Z's perceptions of AI customer service representatives, providing generalizable findings that can inform both organizational strategies and AI system improvements.

Quantitative data enables statistical testing, validates theoretical models, supports replicable research, and measures perceptions numerically (Creswell, 2014, 2018). Bryman (2012) highlights that quantitative research enables the testing of hypotheses using numerical data, which is ideal for ensuring reliability and validity, and is often seen as more scientifically rigorous than qualitative approaches. Moreover, previous scholars, such as Venkatesh & Davis (2000) and Girvan & Savage (2019), who have investigated technology acceptance and human-computer interactions, have effectively employed a quantitative survey approach to gather data on public attitudes, behavioral intentions, and trust factors. Specifically, Venkatesh & Davis

(2000) emphasize quantifiable constructs, such as perceived usefulness, ease of use, and behavioral intention, to be gathered through quantitative and Likert-scale survey items. The CASA paradigm, as proposed by Nass & Moon (2000), suggests measuring perceptions of social presence, empathy, and communication quality using structured survey items, enabling comparisons across groups.

Ultimately, quantitative survey research ensures objectivity and reliability in evaluating large-scale attitudes towards AI technologies in organizations. It delivers high-quality data that benefits academic research and practical applications in industry (Bryman, 2016).

Participants

The sample for this study consisted of Generation Z participants recruited from Kansas State University, representing the Gen Z population in the US. The sample size for this study was calculated using the Qualtrics Sample Size Calculator. With an estimated population of 18,000,000 (National Center for Education Statistics, 2023), a 95% confidence level, and a 5% margin of error, the suggested sample size was 385 participants. A total of 381 responses were collected through Qualtrics. After screening previews, incomplete, and duplicated responses, 367 responses were retained for analysis. Among these participants, 64.2% were between the ages of 18 and 20 years, followed by 21-24 years (24%), and 25-29 years (11.6%). The sample consisted of 63.0% (n=230) female respondents, 35.9% (n=131) male respondents, and a small proportion identifying as non-binary or preferring not to disclose their gender. As for race, 139 of 367 provided ethnicity data. The demographic questions were optional, which may have contributed to the notable number of missing responses. Also, considering the sensitive nature of the question, participants might choose not to disclose their race. The most common type of AI customer service that participants interacted with was virtual assistants (n = 312, 85.0%), chatbots (n = 275, 74.9%), AI phone

systems (n = 262, 71.4%), and live chat features in mobile applications (n = 213, 58.0%). A small number of participants reported other types (n = 13, 3.5%). Because participants could select more than one option, percentages exceed 100%. Regarding experience with AI customer service, participants reported varying levels of interaction. Most indicated that they interacted with AI customer service sometimes (48.0%), followed by half the time (25.6%), most of the time (22.9%), and always (3.5%).

Table 1: Demographic Characteristics of the Sample

Variable	Category	n	%
Age	18–20 years	236	64.2
	21–24 years	89	24.2
	25–29 years	42	11.6
Gender	Female	231	63.0
	Male	132	35.9
	Non-binary / Prefer not to say	4	1.1
Race*	White	89	64.0
	African	21	15.1
	Hispanic	13	9.4
	Black	8	5.8
	Other	8	5.8
AI Frequency	Sometimes	176	48.0
	About half the time	94	25.6
	Most of the time	84	22.9
	Always	13	3.5
Types of AI Used	Virtual assistants	312	85.0
	Chatbots	275	74.9
	AI phone systems	262	71.4
	Live chat on mobile apps	213	58.0
	Other	13	3.5

Procedure

The study used an online survey to collect data from Generation Z at Kansas State University, with IRB approval to ensure ethical standards (see Appendix A-B). The college

students are recruited because they adequately represent the age categories of Gen Z populations in the US needed for this study and are expected to yield more representative data given the population's diversity (Kansas State University Office of Data, 2024). Participants were recruited using a combination of classroom and student organizations recruitment at Kansas State University (see Appendices C-H). The survey link was distributed across 14 undergraduate classes through course instructors, who shared it with students via course communication email and Canvas, the learning website. Participation was incentivized through extra credit, as approved by the course instructors and the IRB. To ensure voluntary participation, alternative assignments offering equivalent points were made available for students who chose not to participate. Multiple reminder messages were sent to instructors over the data collection period to increase participation rates. Also, the survey link was shared with student organizations, including the African Student Union, and Bridges, posted five times as a reminder. All participation was voluntary, and responses were collected anonymously.

The survey data were collected via a Qualtrics link, allowing respondents to answer questions about their experiences with AI customer service representatives. At the beginning of the survey, respondents were informed about the study's purpose and assured of the confidentiality of their responses. Then, screening questions were used to confirm that respondents belonged to Generation Z and had prior experience interacting with AI customer service representatives. The survey took approximately three to four minutes to complete.

Measures

All measures were self-reported on a 5-point scale from TAM and CASA and modified to specifically reflect AI customer service.

Table 2: Measures used in the study

Construct	Code	Item
Perceived Usefulness (PU)	PU1	Using AI customer service improves the efficiency of getting help.
	PU2	AI customer service helps me resolve issues quickly.
	PU3	AI customer service enhances the quality of customer support.
	PU4	Overall, AI customer service is useful for handling customer needs.
Perceived Ease of Use (PEOU)	PEOU1	Learning to use AI customer service is easy for me.
	PEOU2	Interacting with AI customer service is clear and understandable.
	PEOU3	It is easy for me to use AI customer service to get what I need.
Perceived Empathy (PE)	PE1	AI customer service understands my needs.
	PE2	AI customer service responds in a way that feels considerate.
	PE3	AI customer service shows concern for my problems.
Social Presence (SP)	SP1	AI customer service feels personal.
	SP2	AI customer service feels like interacting with a real person.
	SP3	AI customer service creates a sense of human interaction.
Trust (TR)	TR1	I trust AI customer service provides reliable information.
	TR2	AI customer service is dependable.
	TR3	I feel confident using AI customer service.
Attitude Toward AI Customer Service (ATT)	ATT1	My overall attitude toward AI customer service is positive.
	ATT2	Using AI customer service is a good idea.
	ATT3	I like the idea of interacting with AI customer service.
Behavioral Intention (BI)	BI1	I intend to use AI customer service in the future.
	BI2	I will choose AI customer service when it is available.
	BI3	I would recommend AI customer service to others.
Cultural Orientation (CD)	CD1	My cultural background influences how I interact with technology.
	CD2	I prefer technology that aligns with my communication style.
	CD3	Cultural values affect my comfort with AI-based services.

Perceived usefulness was measured using four items adapted from Davis (1989) and Venkatesh and Davis (2000), for example, “AI helps me resolve issues more efficiently.”

Perceived ease of use was measured using three items adapted from Davis (1989) and Venkatesh and Bala (2008), including items like “The AI system’s responses are clear and easy to understand”. Attitude toward AI customer service was measured using three items adapted from Fishbein and Ajzen (1975) and Venkatesh and Davis (2000), including “AI is a good idea for customer service interactions”. Behavioral intention to use was measured using three items adapted from Ajzen (1991) and Venkatesh and Davis (2000), for example, “I would recommend AI customer service representatives to others.”

Perceived empathy was measured using three items adapted from Ciechanowski et al. (2019) and Lee (2025), for example, “The AI responds in a way that makes me feel understood.” Social presence was measured using three items adapted from Short et al. (1976), and Nowak and Biocca (2003), such as “AI communicates in a way that feels natural. Social trust was measured using three items adapted from Gefen and Straub (2004), including “I feel safe sharing information with the AI.”

Cultural orientation was measured using three items adapted from prior cross-cultural technology research (Hofstede, 2001; Yoo et al., 2011), such as “I prefer AI interactions that show respect for social hierarchy or authority.” The full survey instruments used in this study are provided in the appendix.

Data Analysis

The data was analyzed using SPSS. First, reliability analysis was performed to assess the internal consistency of the measurement scales using Cronbach’s alpha. Descriptive statistics, including means and standard deviations, were then calculated to summarize participants’

responses across the variables. Potential method bias was assessed using Harman's single-factor test. Pearson correlation analysis was subsequently conducted to examine the relationships among the key variables and to assess potential multicollinearity prior to regression analysis. Finally, multiple regression was performed to test relationships in the research questions. Three regression models were estimated: model 1 examined predictors of attitudes towards AI customer service representatives. Model 2 examined predictors of behavioral intention to use AI customer service, and Model 3 examined predictors of trust in AI customer service interactions. Cultural orientation was included as a control variable in the regression analysis.

Cronbach's Alpha Reliability Coefficients

Reliability of the measurement scales was assessed using Cronbach's alpha.

Table 3: Cronbach's Alpha Reliability Coefficients

Construct	Items	Cronbach's α
Perceived Usefulness	4	.861
Perceived Ease of Use	3	.712
Empathy	3	.857
Social Presence	3	.847
Trust	3	.767
Cultural Orientation	3	.688
Attitude	3	.891
Behavioral Intention	3	.858

As shown in the Table above, all constructs demonstrated acceptable internal consistency, with alpha values ranging from .688 to .861. Although the reliability for cultural orientation (.688) was slightly below the conventional threshold of .70, it was still considered acceptable for exploratory factor (Hair et al., 2010). Scholars have emphasized the need to ensure that the reliability threshold is considered in relation to the instrument's context and purpose (Taber, 2017).

While acceptable for exploratory purposes, the relatively low reliability suggests that the cultural orientation items may capture related but distinct dimensions, and findings involving this construct should be interpreted accordingly.

Common Method Bias Assessment

Because all variables in this study were measured using a single self-report survey administered at a single time point, the potential for common-method bias was assessed according to the recommendations of Podsakoff et al. (2003). A Harman's single-factor test was conducted by entering all measurement items into an unrotated exploratory factor analysis using principal component analysis. The analysis yielded four factors with eigenvalues greater than 1.0, with the first factor accounting for 43.12% of the total variance. Because the first factor accounted for only a small portion of the variance, common method bias was not considered a serious concern in this study.

In addition to the statistical test, several procedural remedies were implemented to reduce the risk of common-method bias. Participants were assured that their responses would remain anonymous, and the survey included clear instructions encouraging honest responses. Demographic questions were placed separately from the primary measurement items to reduce evaluation apprehension.

Descriptive Statistic

Descriptive statistics for all study variables are presented below in Table 4.

Table 4: Descriptive Statistics for Study Variables

Variable	N	Mean(M)	Std. Deviation (SD)
Perceived Usefulness (PU)	367	2.84	1.04
Perceived Ease of Use (PEOU)	367	3.51	0.93
Perceived Empathy (PE)	366	2.39	1.06
Social Presence (SP)	366	2.03	0.99
Trust (TR)	367	2.61	0.98

Variable	N	Mean(M)	Std. Deviation (SD)
Cultural Orientation (CD)	367	3.07	0.79
Attitude (ATT)	367	2.16	1.02
Behavioral Intention (BI)	366	2.43	1.08

Perceived ease of use demonstrated the highest mean score ($M = 3.51$, $SD = 0.93$), suggesting that participants generally found AI customer service systems easy to use. In contrast, social presence yielded the lowest mean ($M = 2.03$, $SD = 0.99$), indicating that participants perceived AI customer service as less socially engaging and less human-like. This pattern reveals that, though Gen Z users perceived AI customer service as technically accessible, they may not experience it as socially engaging. This contrast provides an important context for interpreting the subsequent regression results. Cultural orientation also showed a moderate mean ($M = 3.07$, $SD = 0.79$). Attitude toward AI customer service ($M = 2.16$, $SD = 1.02$) and behavioral intention ($M = 2.43$, $SD = 1.08$) reflected relatively cautious evaluations of AI systems.

This chapter explained the methodology used to examine Gen Z's perception of AI customer service in organizations. A quantitative research design was employed, with data gathered from Gen Z students at Kansas State University via an online survey. The chapter described the sampling procedure, data collection process, and measurement of the variables. Descriptive statistics were also presented to provide sample profiling and context. In addition, alpha Cronbach's reliability checks were used to assess internal consistency across all variables in the study, along with a common bias method assessment. The next chapter presents the results of the data analysis.

Chapter 4 - Findings

This chapter presents the results of the data analyses conducted to examine the relationships proposed in the study. The chapter begins with a correlation analysis, and the hypotheses are tested using regression analysis. The results are reported in line with the research questions and theoretical framework.

Correlation Analysis

Pearson correlation analysis was conducted to examine the relationships among the study variables

Table 5: Pearson Correlations Among Study Variables

Variable	1	2	3	4	5	6	7	8
1. Perceived Usefulness (PU)	—							
2. Perceived Ease of Use (PEOU)	.623	—						
3. Perceived Empathy (PE)	.554	.457	—					
4. Social Presence (SP)	.543	.424	.713	—				
5. Trust (TR)	.589	.524	.566	.562	—			
6. Cultural Orientation (CD)	.470	.426	.563	.50	.578	—		
7. Attitude (ATT)	.561	.388	.461	.571	.519	.423	—	
8. Behavioral Intention (BI)	.558	.441	.448	.513	.531	.450	.798	—

As shown in Table 5, all constructs were positively and significantly correlated ($p < .001$). Perceived usefulness was strongly correlated with perceived ease of use ($r = .623$), trust ($r = .589$), and attitude ($r = .561$). Perceived empathy and social presence demonstrated a strong relationship ($r = .713$), suggesting conceptual overlap consistent with the CASA framework.

Attitude toward AI customer service was positively associated with perceived usefulness ($r = .561$), social presence ($r = .571$), and trust ($r = .519$). Behavioral intention showed a very strong positive correlation with attitude ($r = .798$), providing preliminary support for the

Technology Acceptance Model. None of the correlations exceeded .80, indicating that multicollinearity was not a serious concern.

Regression Analysis

Multiple regression analyses were conducted to test the proposed research model.

Table 6: Multiple Regression Result Predicting Attitude (ATT)

Predictor B		t	p
PU	.335	5.883	< .001
SP	.383	6.441	< .001
CD	.109	2.160	.031
PEOU	.002	.030	.976 (ns)
PE	-.061	-.983	.326 (ns)

In Model 1, attitude towards AI customer service was regressed on perceived usefulness, perceived ease of use, perceived empathy, social presence, and cultural orientation. The model was significant, $F(5, 359) = 53.33$, $p < .001$, explaining 42.6% of the variance in attitude ($R^2 = .426$). Perceived usefulness ($\beta = .335$, $p < .001$) and social presence ($\beta = .383$, $p < .001$) emerged as significant predictors. Cultural orientation showed a small but significant effect ($\beta = .109$, $p = .031$), whereas perceived ease of use and empathy were not significant predictors. Multicollinearity diagnostics were conducted. Variance Inflation Factor (VIF) values ranged from 1.56 to 2.41, indicating that multicollinearity was not a concern in the model. These results address H1 and H3, which examined whether perceived usefulness and perceived empathy influenced Generation Z's attitude toward AI customer service representatives. The findings indicate that perceived usefulness significantly predicts attitude, supporting H1, whereas perceived empathy does not; therefore, H3 was not supported.

In Model 2, behavioral intention was regressed on attitude, perceived usefulness, ease of use, perceived empathy, social presence, and cultural orientation.

Table 7: Multiple Regression Result Predicting Behavioral Intention (BI)

Predictor	B	T	p
ATT	.682	17.919	< .001
PEOU	.094	2.360	.019
CD	.086	2.229	.026
PU	.078	1.730	.084 (ns)
PE	.000	.001	.999 (ns)

The model was significant, $F(5, 359) = 144.66$, $p < .001$, accounting for 66.8% of the variance ($R^2 = .668$). Attitude was the strongest predictor ($\beta = .682$, $p < .001$), followed by perceived ease of use ($\beta = .094$, $p = .019$) and cultural orientation ($\beta = .086$, $p = .026$). Multicollinearity diagnostics indicated that VIF values ranged from 1.57 to 2.21, suggesting that multicollinearity was not a concern in this Model. The results address H2 by revealing that perceived ease of use significantly predicts Generation Z's behavioral intention to use AI customer service representatives, thereby supporting H2.

In Model 3, trust was regressed on perceived empathy, social presence, and cultural orientation.

Table 8: Multiple Regression Results Predicting Trust (TR)

Predictor	β	t	p
CD	.344	7.193	< .001
SP	.263	4.660	< .001
PE	.182	3.079	.002

The model was significant, $F(3, 361) = 98.62$, $p < .001$, explaining 45.0% of the variance in trust ($R^2 = .450$). Cultural orientation ($\beta = .344$, $p < .001$), social presence ($\beta = .263$, $p < .001$), and empathy ($\beta = .182$, $p = .002$) significantly predicted trust. For this model, VIF values ranged from 1.50 to 2.30, indicating no evidence of problematic multicollinearity. The results address H4, which examined how perceived social presence influences trust in AI customer service

representatives. The regression results indicate that perceived social presence significantly predicts trust, supporting H4.

Chapter 5 - Discussion and Conclusion

As organizations increasingly rely on AI in their communication, several studies have examined its implications for their customer relationships. However, the existing literature has not adequately evaluated Gen Z's perceptions as customers, who are considered technologically inclined and generally have more experience in interacting with AI. This study examined Gen Z's perception of AI customer service representatives by integrating the TAM and CASA framework, with trust and cultural orientation as additional explanatory factors.

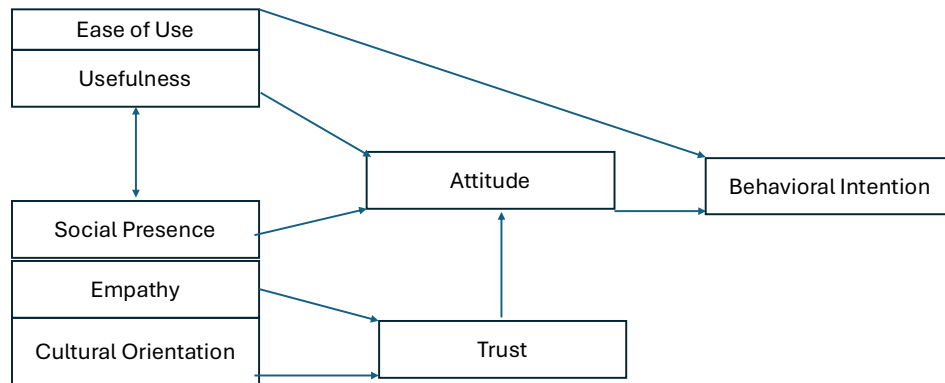


Figure 2. Empirisscally Supported Conceptual Model

Following data analysis, the conceptual model was revised to reflect the relationship supported by the data. The model retina is the core structure of the hypothesized framework, especially the central role of attitude as a key predictor of behavioral intention. Attitude plays a central role in shaping behavioral intention, indicating that Gen Z's willingness to adopt AI customer service is primarily driven by their overall evaluation of the technology. This supports

the combination of TAM and CASA, underscoring the importance of social and cultural influences in evaluating AI customer service. Gen Z's willingness to use AI customer service is mainly determined by their evaluation of the technology. Gen Z's attitudes toward AI customer service are primarily shaped by whether they see it as functionally useful, consistent with TAM's core prediction and Yi and Choi's (2023) findings.

However, perceived usefulness did not directly predict behavioral intention once attitude was included in the model, suggesting that its effect operates indirectly through attitude. Perceived ease of use, on the other hand, does not shape attitude but does have a direct effect on behavioral intention. This suggests that for Gen Z, ease of use serves as a baseline expectation rather than a factor shaping their evaluation of AI customer service, while it does play a role in their intention to adopt it. This means that the relative weight of TAM constructs is not fixed; it shifts based on users' communicative histories with technology. For older generations unfamiliar with technology, ease of use might be a major factor influencing attitudes towards AI customer service representatives.

Unlike previous findings (Liu et al., 2025; Sanjeewa et al., 2024) suggesting that empathy leads to positive attitudes, this study identifies a distinct role for empathy in shaping trust rather than attitudes, indicating that emotional sensitivity operates through a relational rather than cognitive pathway. The distinction is important because it indicates that individuals do not necessarily evaluate AI technologies more positively simply because they appear empathetic; instead, empathy contributes to the perception that AI is reliable and worthy of trust.

Social presence emerged as one of the strongest predictors of attitude, highlighting the importance of human-like, socially engaging interactions in shaping an individual's evaluation of AI customer service. This is consistent with the CASA framework, which posits that users apply

social cues when interacting with AI technologies, and aligns with prior work demonstrating the importance of social cues in shaping users' responses (Cyr et al., 2007; Go and Sundar, 2019). Interestingly, perceived empathy did not significantly predict attitude but did significantly predict trust. This suggests that emotional sensitivity plays a major role in fostering trust toward an AI customer service representative, rather than attitude. Cultural orientation demonstrated consistent and meaningful effects across the models. It significantly predicted both attitude and trust and contributed to behavioral intention.

Cultural orientation also affects the model, particularly as a strong predictor of trust. This aligns with the argument that individuals' cultural value orientations influence their perceptions of trustworthiness and acceptance of technology (Gefen & Straub, 2004; Srite & Karahanna, 2006). This shows the importance of broader value systems and cultural frameworks in influencing how Gen Z interprets and evaluates AI customer service interactions.

The results indicate that functional perceptions, such as usefulness and social perceptions, including social presence and cultural factors, collectively shape Generation Z's responses to AI customer service representatives. Though traditional technology acceptance mechanisms remain influential, social and contextual factors play a substantial role in trust formation and behavioral intention.

Theoretical implications

A key contribution of this study is to understand Gen Z's perceptions of AI as customer service and its implications on organizational customer relationships. It responds to the recent call for more empirical studies on how Gen Z perceives AI customer service (Saklani & Kala, 2024). This study proposed a model examining how functional perceptions of AI customer service (perceived usefulness and perceived ease of use) and social perceptions (perceived empathy)

influence Gen Z's attitudes toward AI customer service representatives. The model further proposes that attitude shapes behavioral intention to use AI customer service as the cognitive pathway, while trust is influenced by empathy, social presence, and cultural differences, showing the relational pathway. This shows the significance of integrating both the Technology Acceptance Model and the CASA framework.

The Technology Acceptance Model has been used to study predicting users' acceptance of technology like AI based on two major factors, perceived usefulness and ease of use, which influence attitude and behavior (Davis, 1989; Venkatesh & Davis, 2000). Yi and Choi (2023) applied TAM to explore the most dominant factor influencing users' perceptions of AI customer service. Their findings show that usability is a major factor influencing trust and satisfaction with AI agents. Building on their findings, the study provides important insight into the applicability of TAM in the context of AI customer service. Consistent with TAM, attitude toward AI customer service representatives emerged as the strongest predictor of behavioral intention. This result confirms the central prediction of TAM that individuals' evaluation of technology significantly shapes their intention to use it. For Gen Z customers, a favorable attitude toward AI customer service appears to be the primary factor in adoption.

Perceived usefulness also plays a significant role in shaping attitudes towards AI customer service. Participants who believed that AI improves efficiency and facilitates quicker problem resolution were most likely to evaluate positively. This finding corroborates Yi and Choi (2023), supporting that usefulness remains one of the most influential determinants of technology acceptance. However, it does not directly predict behavioral intention, suggesting that its influence operates indirectly through attitude, consistent with the TAM, which posits that attitudes mediate the relationship between perceptions of technology and behavioral intention.

Although ease of use did not significantly predict attitude, it did positively predict behavioral intention. One possible explanation is that Gen Z is highly familiar with digital interfaces and, therefore, may view usability as an expected baseline characteristic rather than a factor that strongly influences their attitudes. However, ease of use contributes to their willingness to interact with AI. This finding suggests that the relative importance of TAM constructs may shift when examining technologically sophisticated populations such as Generation Z.

Most prior studies guided by CASA have highlighted human-AI relational communication as a major predictor of acceptance (Reeves & Nass, 1996). This study thus contributes beyond their functional efficiency. The perception that an AI customer service that communicates naturally exhibits socially engaging behavior appears to enhance users' overall evaluation of the interaction. This study specifically found social presence as one of the strongest predictors of attitudes toward AI customer service representatives.

Interestingly, perceived empathy did not significantly predict attitude, but it did predict trust in AI customer service. This indicates that while emotional understanding may not directly influence how users evaluate AI systems overall, it plays an important role in determining whether users perceive these systems as trustworthy. As conceptualized in the Technology Acceptance Model (TAM), it reflects a cognitive evaluation of a system's usefulness and performance, whereas trust involves perceptions of vulnerability and the willingness to rely on the system. In this context, empathy may play a greater role in determining whether an AI system can understand and respond to individuals' needs, thereby shaping trust rather than general attitudes toward technology. This interpretation also aligns with the CASA framework, which suggests that social cues such as empathy influence relational judgments in human-AI interactions. From this perspective, the cognitive and relational evaluations of AI customer service representatives may operate through

distinct pathways. Functional attributes, such as usefulness, may drive attitudes toward AI technologies, whereas social cues, such as empathy, may play a strong role in establishing trust.

Cultural orientation shows that individual differences in communication preferences related to hierarchy, group orientation, and interaction style appear to influence trust formation, warranting further investigation using more refined cultural measures. Respondents who expressed stronger preference for respectful hierarchy, cooperative group dynamics, and socially appropriate communication were more likely to report higher levels of trust in AI customer service systems. For Generation Z users, cultural values may influence expectations about communication style, interpersonal sensitivity, and technological interaction norms.

Overall, this study contributes to the scholarly conversation on technology acceptance by extending the Technology Acceptance Model (TAM) and the Computers as Social Actors (CASA) framework to examine Gen Z customers' interactions with AI customer service representatives. The findings show that both technological perceptions and social interpretations influence how Generation Z evaluates AI customer service representatives. While TAM effectively explains how functional attributes influence adoption behavior, the CASA framework provides additional insight into how social characteristics of AI systems shape user responses.

Practical Implications

Aside from the theoretical contributions, this study provides useful suggestions for organizations that rely on artificial intelligence to deliver customer service. As AI systems like chatbots, virtual assistants, and automated phone systems continue to replace or supplement human service agents, understanding how individuals evaluate these technologies is essential for improving customer experience and adoption. Attitude is revealed as the primary factor influencing Gen Z's behavioral intention to use AI customer service representatives. When AI

customer service representatives are perceived as useful, efficient, and capable of resolving problems faster, individuals are more likely to develop positive evaluations of the technology. Organizations are suggested to prioritize the functional effectiveness of AI customer service by ensuring accurate responses, rapid issue resolution, and seamless integration with human support when necessary.

In addition to functional performance, organizations are encouraged to consider social presence, empathy, and cultural orientation when integrating AI into their communication strategies. Findings from this study highlight social presence in AI customer service experiences as a significant factor shaping attitudes toward AI systems, while empathy and social interaction features contributed to the development of trust. This suggests that AI customer service should not only focus on efficiency but also incorporate communication features that encourage natural, socially engaging interactions. When they respond sensitively to customers' concerns and demonstrate conversational competence, customer satisfaction will improve. Also, because empathy predicts trust, not attitudes. Organizations deploying AI need to treat functional and relational performance as separate design challenges, as they shape different outcomes. Functional performance drives attitudes; relational performance drives trust.

For policymakers guiding the responsible integration of artificial intelligence in service environments, AI technologies that are useful and encourage consumer trust should be prioritized. Trust is an important factor shaping the general acceptance of AI customer service. This therefore suggests that regulatory policies should encourage organizations to clearly disclose when customers are interacting with AI systems and how these systems process user data. Also, given the influence of cultural orientation on trust in AI interactions, policymakers should support the development of inclusive AI guidelines that account for diverse user expectations and

communication styles. Standards for ethical AI communication and consumer systems are developed to maintain public confidence and safeguard user interests.

For AI developers, the findings underscore the importance of designing AI customer service agents that balance functional efficiency with socially responsive communication. They are suggested to improve the conversational design, natural language processing, and personalization features that create a sense of social presence during interaction. Also, empathetic communication cues may strengthen trust in AI customer service representatives by signaling understanding and responsiveness to user concerns.

Limitations And Future Research

The first limitation of the findings is limited generalizability because the sample is drawn exclusively from a single university. Although this group represents Gen Z, their experiences and exposure to AI customer service representatives may differ from those of Gen Z populations at other universities, regions, or countries. As a result, the conclusion primarily reflects perceptions within a specific institutional and cultural context rather than the broader generations. Future research should therefore consider collecting data from a more diverse population across multiple institutions or regions to improve the external validity of the findings.

Secondly, the study relied on online self-reported survey data to measure participants' perceptions and intentions regarding AI customer service representatives, thereby limiting control over the environment in which the questionnaire was completed. Also, self-reported responses may be influenced by social desirability bias or respondents' subjective interpretations of their experiences with AI technologies. In addition, the cross-sectional design of this study means the causal direction cannot be established. Attitudes might shape perceptions of usefulness as much as perceptions shape attitudes. A longitudinal research design would have provided a better

understanding of how individuals' perceptions and behavioral intentions towards AI customer service develop over time.

Third, though the study examined several constructs derived from the TAM and CASA frameworks, other potentially relevant factors were not included in the model. Variables such as perceived privacy risk, transparency of AI decision-making, algorithmic fairness, and prior experience with AI technologies may also influence how individuals evaluate AI customer service representatives. Including these factors in future studies could provide a more comprehensive understanding of the psychological and contextual drivers of AI adoption in organizational communication contexts.

Also, the possibility of common-method variance is a potential limitation. All variables were measured using self-report survey responses collected from the same participants at a single point in time. This may introduce share-method bias, as respondents may answer items consistently across constructs. Although multicollinearity computation indicated acceptable variance inflation factor (VIF) values, suggesting that predictors were sufficiently distinct, the possibility of common method variance cannot be fully ruled out. Future research could address this limitation by collecting data from multiple sources or using longitudinal or experimental designs.

Moreover, a high level of missing responses for the race and ethnicity variables limited this study's ability to examine potential differences in AI perceptions across the Gen Z demographic groups. Cultural and social background may influence how individuals perceive AI technologies, particularly in a communication context. Future research is invited to obtain more complete demographic data to better understand how trust, attitudes, and behavioral intentions towards AI customer service representatives may differ across demographic groups.

The lack of adequate experience with AI customer service representatives is a limitation of the findings. Only a few respondents indicated “always” as their frequency of interaction with AI customer service. This can potentially undermine the authenticity and quality of their perceptions, thereby making the findings less reliable when surveyed among participants with greater exposure to AI customer service.

Finally, participants were not provided with standardized definitions of different types of AI customer service systems prior to completing the survey. Thus, responses may reflect participants’ varying interpretations and prior experiences with AI technologies, potentially introducing variability in how the proposed constructs were perceived. Future research could address this by providing clear examples or experimental manipulations to ensure a more consistent understanding of the AI system across participants.

Conclusion

This study explores Generation Z’s perceptions of AI customer service representatives to measure Gen Z’s perceptions and evaluations of AI in organizational communication. The findings are valuable for organizations that develop and deploy AI communication systems, as they highlight important factors such as trust, perceived empathy, and social presence that shape individual acceptance. It is primarily built on the Technology Acceptance Model (which explains how individual acceptance of AI is shaped and supported) and on Computers Are Social Actors (which captures the social and relational dimensions). Constructs derived from the two theories: perceived usefulness, perceived ease of use, perceived empathy, social presence, attitude, and behavioral intention serve as the variables for evaluation. The findings suggest that perceived usefulness and social presence significantly contribute to more positive attitudes toward AI customer service, while perceived ease of use influences individuals' intention to engage with the

technologies. In addition, trust and cultural orientation were found to play important roles in shaping how users evaluate and respond to AI service interactions.

The overall result suggests that Gen Z evaluates AI customer service based on its functional efficiency and its ability to stimulate social interactions. This study contributes to organizational communication scholarship by demonstrating that AI customer service functions not only as a technological tool but also as a communicative agent that shapes user perception. The findings highlight that organizations should approach AI design as a communication process, where factors such as social presence, empathy, and cultural alignment influence how users evaluate and trust the systems. Distinguishing between cognitive and relational(trust) mechanisms, this study provides a framework for understanding how communicative technologies should be designed and deployed to enhance both user acceptance and engagement. Thus, the preliminary findings invite further research to assess the risks and implications of AI customer service in organizations, ensuring the effective and appropriate integration of AI technologies in organizational communication while prioritizing customer/public satisfaction.

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Appendix A - Survey Instrument

Generation Z's Perceptions of AI Customer Service Representatives in Organizations

Start of Block: Default Question Block

This survey is being conducted as part of a research study at the A.Q. Miller School of Media and Communications at Kansas State University. This study aims to explore how Gen Z evaluates AI customer service and examine the implications of these perceptions on organizational communication. The information you provide is confidential and will help understand how organizations can effectively integrate AI technologies as their customer service representatives. The findings can help Organizations make informed decisions about factors to consider when integrating AI into their communication strategies. I encourage you to answer all the questions but understand that you may stop at any time if you feel uncomfortable. Your honest responses will greatly contribute to the success of this study. Thank you for taking the time to participate in this survey. This study has been approved by the Institutional Review Board (IRB-13490) and your participation is voluntary. It will not take more than 3 minutes. Please note: you must be 18 years, Gen Z, and a college student to participate I verify by clicking “I Accept” below, that I have read and understood this information, and willingly agree to participate in this study under the terms described.

☐ Accept (1)

☐ Exit (2)

Skip To: End of Survey If Consent = Exit

End of Block: Default Question Block

Start of Block: Block 1

Q1 What type of AI customer Service have you interacted with?

☐

Chatbot (1)

☐

Virtual Assistant (e.g.Siri, Alexa, Google Assistant) (2)

- ☐ A live chat in mobile apps (e.g. banking, airline, shopping apps) (3)
- ☐ AI phone System (e.g. press 1 for...) (4)
- ☐ Others? (5) _____

Q2 How often do you interact with AI systems (e.g., customer-service bots)?

- ☐ Sometimes (1)
- ☐ About half the time (2)
- ☐ Most of the time (3)
- ☐ Always (4)

End of Block: Block 1

Start of Block: Perceived Usefulness (PU)

Q3 AI helps me resolve issues more efficiently

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q4 AI saves me time compared to a human agent

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q5 AI provides quick and accurate responses

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q6 AI makes the interaction more productive

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)

☐ Strongly agree (5)

End of Block: Perceived Usefulness (PU)

Start of Block: Perceived Ease of Use (PEOU)

Q7 Interacting with AI is easy

☐ Strongly disagree (1)

☐ Somewhat disagree (2)

☐ Neither agree nor disagree (3)

☐ Somewhat agree (4)

☐ Strongly agree (5)

Q8 Learning to communicate with AI requires little effort

☐ Strongly disagree (1)

☐ Somewhat disagree (2)

☐ Neither agree nor disagree (3)

☐ Somewhat agree (4)

☐ Strongly agree (5)

Q9 The AI system's responses are clear and easy to understand

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

End of Block: Perceived Ease of Use (PEOU)

Start of Block: Perceived Empathy (PE)

Q10 The AI understands my feelings or concerns

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q11 The AI responds in a way that makes me feel understood

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)

- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q12 The AI communicates with sensitivity

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

End of Block: Perceived Empathy (PE)

Start of Block: Social Presence (SP)

Q13 The AI representative feels personable and engaging

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q14 I feel a sense of human connection when interacting with AI

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q15 AI communicates in a way that feels natural and social

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

End of Block: Social Presence (SP)

Start of Block: Trust (TR)

Q16 I trust the AI to provide accurate information

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q17 I feel safe sharing information with the AI

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q18 I believe the AI acts in users' best interests

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)

☐ Somewhat agree (4)

☐ Strongly agree (5)

End of Block: Trust (TR)

Start of Block: Cultural Dimension (CD)

Q19 I prefer AI interactions that show respect for social hierarchy or authority

☐ Strongly disagree (1)

☐ Somewhat disagree (2)

☐ Neither agree nor disagree (3)

☐ Somewhat agree (4)

☐ Strongly agree (5)

Q20 I value AI systems that promote group harmony over individual goals.

☐ Strongly disagree (1)

☐ Somewhat disagree (2)

☐ Neither agree nor disagree (3)

☐ Somewhat agree (4)

☐ Strongly agree (5)

Q21 I am comfortable when AI communicates in a friendly or informal tone

- ☐ **Extremely uncomfortable (1)**
- ☐ **Somewhat uncomfortable (2)**
- ☐ **Neither comfortable nor uncomfortable (3)**
- ☐ **Somewhat comfortable (4)**
- ☐ **Extremely comfortable (5)**

End of Block: Cultural Dimension (CD)

Start of Block: Attitude Toward AI Customer Service Representatives (ATT)

Q22 I enjoy interacting with AI customer service representatives

- ☐ **Strongly disagree (1)**
- ☐ **Somewhat disagree (2)**
- ☐ **Neither agree nor disagree (3)**
- ☐ **Somewhat agree (4)**
- ☐ **Strongly agree (5)**

Q23 My attitude toward using AI in customer service is positive

- ☐ Extremely negative (1)
- ☐ Somewhat negative (2)
- ☐ Neither positive nor negative (3)
- ☐ Somewhat positive (4)
- ☐ Extremely positive (5)

Q24 AI is a good idea for customer service interactions

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

End of Block: Attitude Toward AI Customer Service Representatives (ATT)

Start of Block: Behavioral Intention to Use (BI)

Q25 I intend to use AI customer service representatives in the future

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)

- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q26 I prefer AI for simple customer service tasks

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

Q27 I would recommend AI customer service representatives to others

- ☐ Strongly disagree (1)
- ☐ Somewhat disagree (2)
- ☐ Neither agree nor disagree (3)
- ☐ Somewhat agree (4)
- ☐ Strongly agree (5)

End of Block: Behavioral Intention to Use (BI)

Start of Block: Sociodemographic Information

Q28 Gender

- ☐ Male (1)
- ☐ Female (2)
- ☐ Non-binary (3)
- ☐ Prefer not to say (4)

Q29 Age

- ☐ 18 - 20 (1)
- ☐ 21 - 24 (2)
- ☐ 25 - 29 (3)

Q30 Cultural Background/Nationality

End of Block: Sociodemographic Information

Appendix B - IRB Approval Letter



Office of Research Integrity,
Compliance and Security

TO: Sean Eddington
AQ Miller School of Media and Communication
Manhattan, KS 66506

FROM: Lisa Rubin, Chair
Committee on Research Involving Human Subjects

DATE: 01/16/2026

RE: Proposal Entitled, "Generation Z's Perceptions of AI Customer Service Representatives in Organizations."

Proposal Number: IRB-13490

The Committee on Research Involving Human Subjects / Institutional Review Board (IRB) for Kansas State University has reviewed the proposal identified above and has determined that it is EXEMPT from further IRB review. This exemption applies only to the proposal - as written - and currently on file with the IRB. Any change potentially affecting human subjects must be approved by the IRB prior to implementation and may disqualify the proposal from exemption.

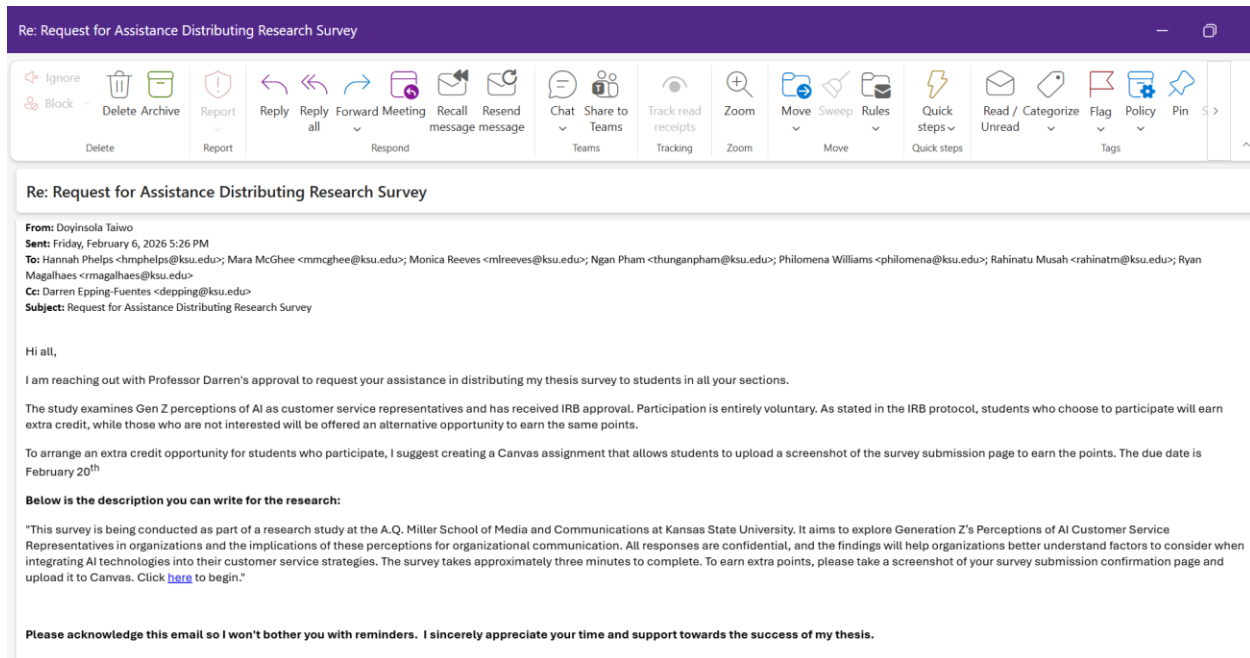
Based upon information provided to the IRB, this activity is exempt under the criteria set forth in the Federal Policy for the Protection of Human Subjects, **45 CFR §104(d), category:Exempt Category 2 Subsection ii.**

Certain research is exempt from the requirements of HHS/OHRP regulations. A determination that research is exempt does not imply that investigators have no ethical responsibilities to subjects in such research; it means only that the regulatory requirements related to IRB review, informed consent, and assurance of compliance do not apply to the research.

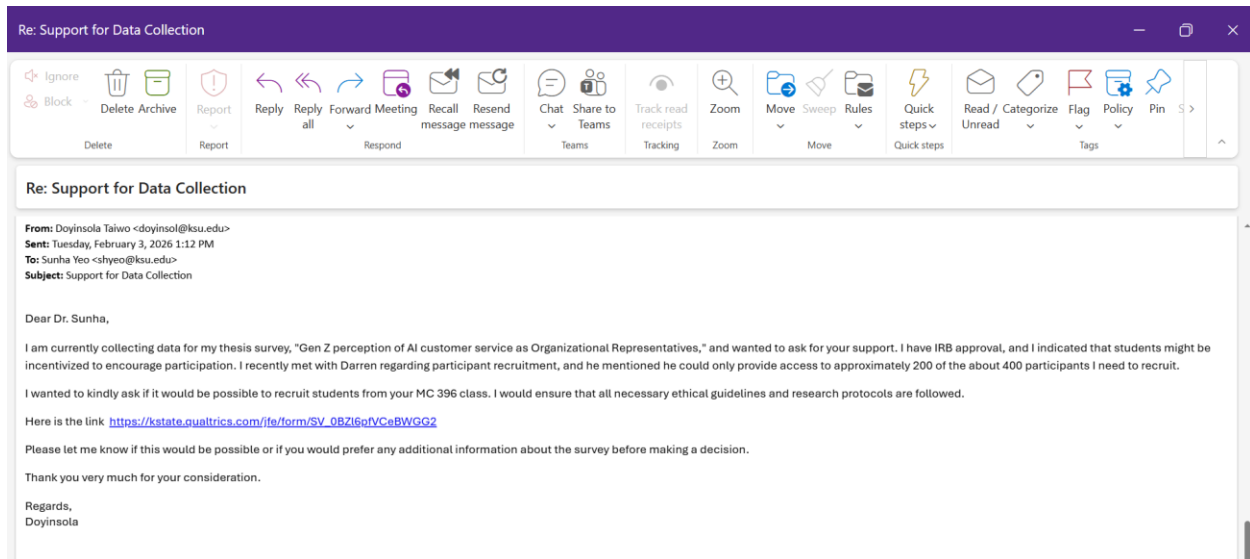
Any unanticipated problems involving risk to subjects or to others must be reported immediately to the Chair of the Committee on Research Involving Human Subjects, the University Research Compliance Office, and if the subjects are KSU students, to the Director of the Student Health Center.

Electronically signed by Lisa Rubin on 01/16/2026 11:38 AM ET

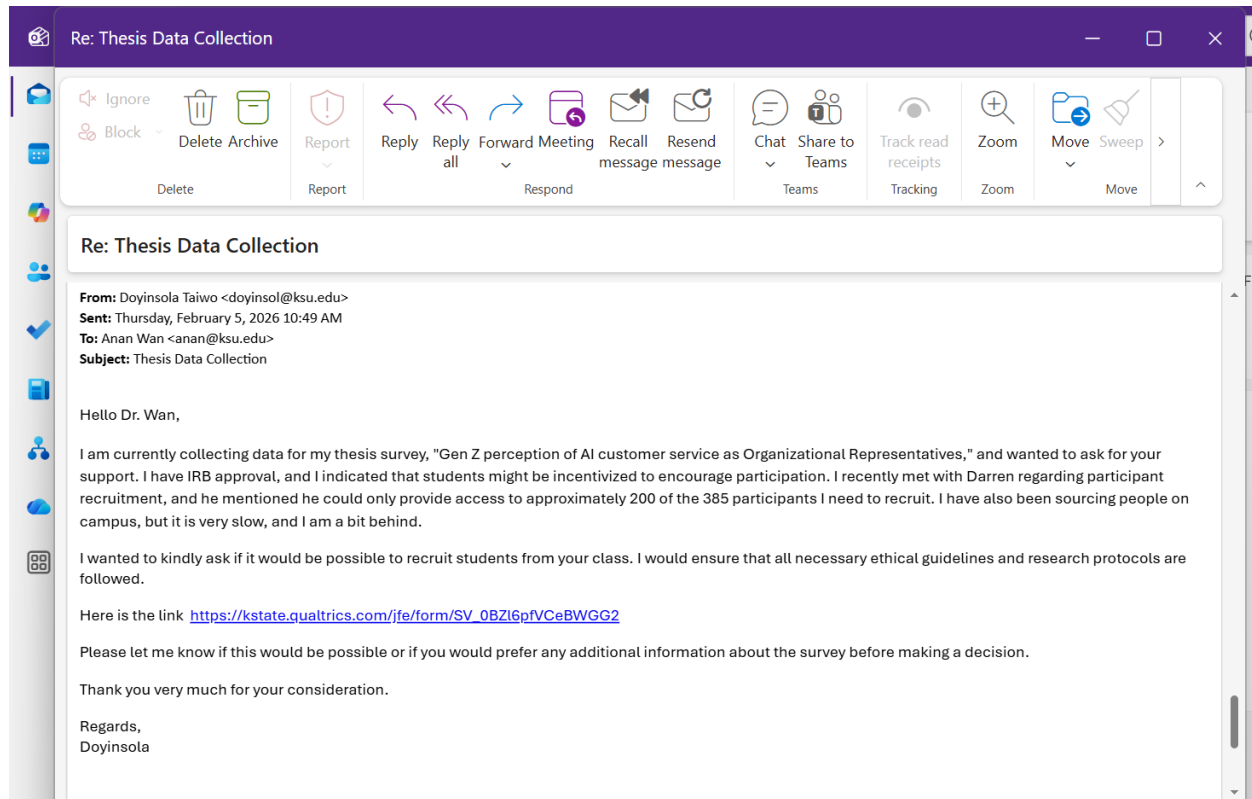
Appendix C - Communication for Participants Recruitment



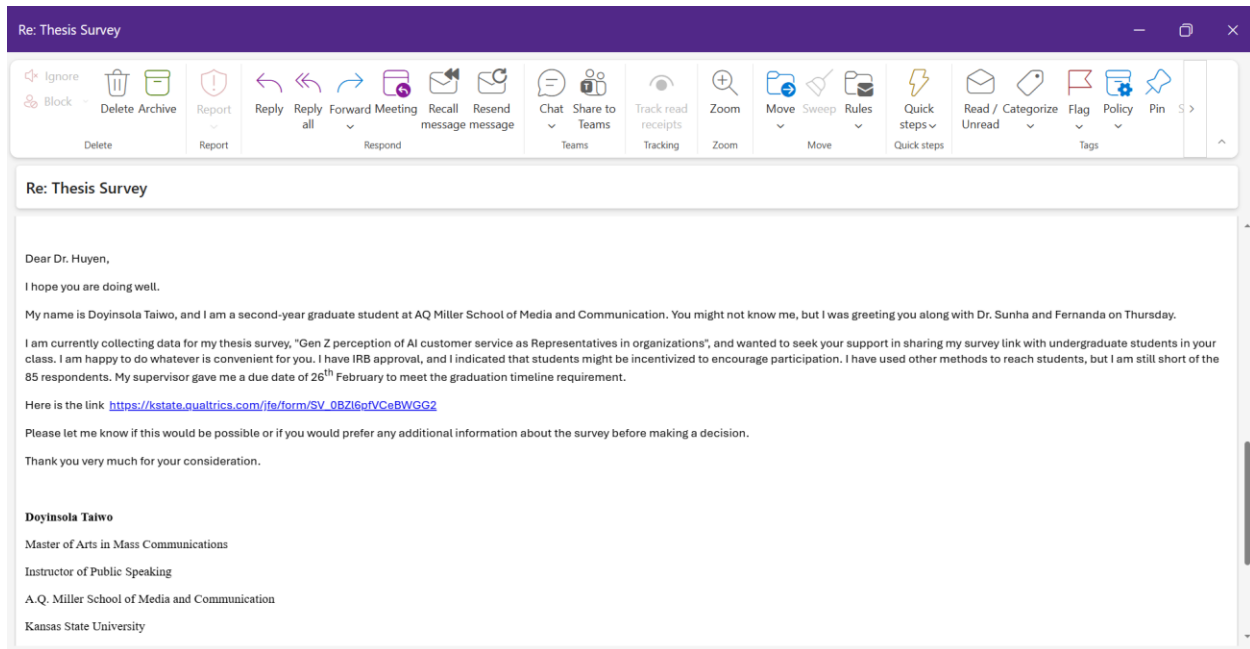
Appendix D - Communication for Participants Recruitment



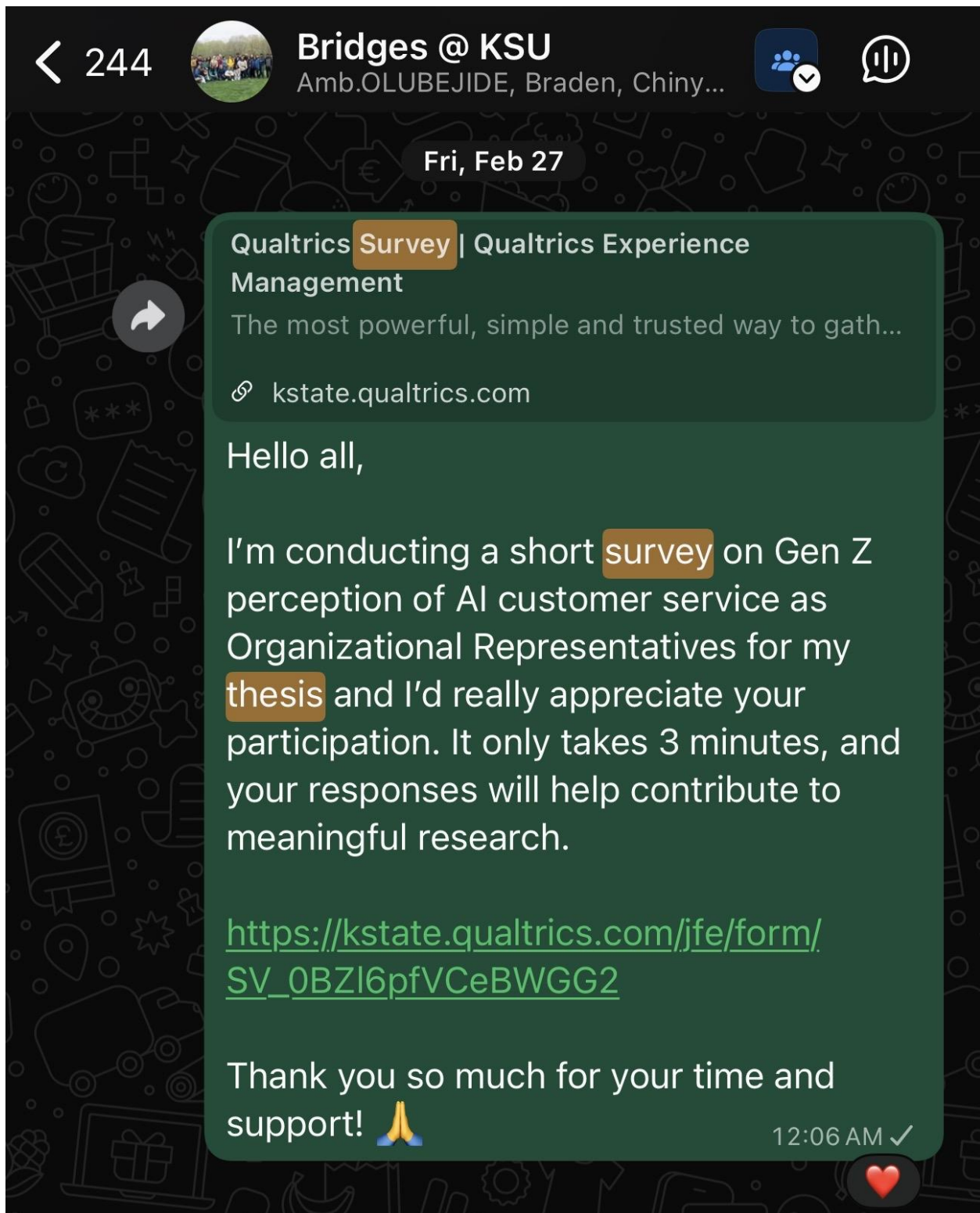
Appendix E - Communications for Participant Recruitment



Appendix F - Communications for Participant Recruitment



Appendix G - Communications for Participant Recruitment



Appendix H - Communications for Participant Recruitment

