

# Consumer Attitudes Towards AI Chatbots in Customer Service: Convenience vs. Frustration

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**Abstract-** The rapid integration of Artificial Intelligence (AI) in customer service has transformed the way businesses interact with consumers, with AI-powered chatbots becoming increasingly common across sectors such as e-commerce, banking, telecom, and food delivery. While these chatbots promise convenience through instant responses, 24/7 availability, and cost-efficient service, they have also drawn criticism for impersonal interactions, repetitive responses, and unresolved queries that can frustrate users. This study aims to explore consumer attitudes toward AI chatbots, focusing on the balance between convenience and frustration. Using a secondary research approach, the paper synthesizes findings from academic literature, industry reports, and case studies to provide a comprehensive understanding of how consumers perceive chatbot-driven service. The analysis highlights key factors contributing to positive consumer experiences, such as ease of use, speed, accuracy, and personalization, as well as elements that trigger dissatisfaction, including lack of empathy, miscommunication, and limited problem-solving capability. Furthermore, the study examines variations in consumer perceptions across different industries, noting that expectations and tolerance levels differ between sectors like banking and e-commerce. The findings offer practical insights for businesses seeking to optimize chatbot interactions, emphasizing the importance of hybrid AI-human support models, improved natural language processing, and clear escalation mechanisms for complex queries. By consolidating existing research, this paper contributes to a deeper understanding of consumer behaviour in AI-mediated service environments and provides a foundation for future empirical studies exploring regional, demographic, and technological variations in chatbot adoption. Overall, the study underscores that while AI chatbots enhance operational efficiency and convenience, careful design and implementation are crucial to minimize consumer frustration and maintain brand trust.

**Keywords:** *AI chatbots, customer service, consumer behaviour, convenience, frustration, customer satisfaction, technology acceptance, digital service experience*

## INTRODUCTION

The integration of Artificial Intelligence (AI) into customer service has transformed how businesses interact with consumers. AI-powered chatbots, designed to simulate human conversation, are now common across industries such as e-commerce, banking, telecommunications, and food delivery (Azaga, 2024). They promise enhanced efficiency, cost-effectiveness, and 24/7 availability, enabling organizations to handle large volumes of customer inquiries with minimal human intervention (IBM, 2024). Yet, consumer reactions remain divided, shaped by both appreciation for convenience and frustration with limitations (Ranieri et al., 2024).

### The Rise of AI Chatbots in Customer Service

AI chatbots use Natural Language Processing (NLP) and machine learning to respond to customer queries in real time (Sidlauskienė et al., 2023). Their ability to provide instant responses and manage multiple interactions simultaneously makes them attractive to businesses seeking to improve operational efficiency. For example, banks employ chatbots to handle account inquiries and transactions, while e-commerce platforms use them for product recommendations and order tracking. These implementations demonstrate the potential of AI chatbots to reduce wait times and free up human agents for more complex issues (Uberall, 2024).

However, performance quality strongly influences perceptions. When chatbots fail to understand queries, provide incorrect responses, or follow rigid scripts, consumer frustration quickly replaces the perceived benefit of immediacy (Dewanti, Hidayanto, & Budiardjo, 2025). This illustrates the fine line between efficiency and dissatisfaction that organizations must manage.

Consumer Perceptions: Convenience and Challenges

On the positive side, consumers value the convenience of chatbots for simple, routine

interactions. Quantum Metric (2024) reported that 64% of users appreciated their availability at all hours, while Geana et al. (2025) found that consumers preferred chatbots for sensitive or embarrassing topics because anonymity reduced discomfort. These findings suggest that chatbots can create value when tasks are low-risk, repetitive, or socially delicate.

Conversely, dissatisfaction arises when chatbots cannot resolve complex or emotionally charged concerns. UJET (2022) noted that 80% of customers felt more irritated when chatbots failed to solve their issues, often escalating to human agents. Ozuem et al. (2024) further showed that the absence of empathy and contextual understanding reduces loyalty and discourages repeat use. Thus, while convenience attracts consumers, service failures amplify frustration.

Theoretical Frameworks: TAM and Algorithm Aversion

The Technology Acceptance Model (TAM) helps explain these mixed responses. TAM posits that perceived usefulness and ease of use drive adoption (Azaga, 2024). In the case of chatbots, consumers embrace them when they are intuitive and effective but disengage when systems feel cumbersome or unhelpful (Hsu et al., 2023).

Additionally, algorithm aversion contributes to consumer skepticism. Users may distrust chatbots, even when they function efficiently, due to concerns about accountability, transparency, and the impersonal nature of automated interactions (Dietvorst, Simmons, & Massey, 2015). This suggests that improving chatbot design requires not just technical refinement but also strategies to enhance consumer confidence and trust.

#### RESEARCH GAP AND OBJECTIVES

While many studies have explored AI chatbot adoption, consumer satisfaction, and technology acceptance, there is limited synthesis of these findings across industries and demographics. Existing research often examines convenience and frustration separately, without fully exploring how they interact with trust and emotional responses (Ranieri et al., 2024; Gu et al., 2024). This paper addresses this gap by conducting a secondary research analysis of existing studies and surveys to provide a holistic understanding of consumer attitudes toward AI chatbots.

The study has four main objectives:

1. To identify the factors influencing consumer perceptions of AI chatbots, focusing on convenience and frustration.
2. To analyze the relationship between chatbot interactions, customer satisfaction, and brand loyalty.
3. To examine industry-specific variations in consumer responses.
4. To recommend strategies for designing chatbots that balance efficiency with trust and emotional engagement.

By addressing these objectives, this research aims to provide businesses with insights into optimizing AI chatbot deployment, ensuring that efficiency is achieved without sacrificing consumer trust and satisfaction (Geana et al., 2025).

#### LITERATURE REVIEW

The adoption of Artificial Intelligence (AI) chatbots in customer service has sparked widespread interest among businesses and consumers alike. While these technologies promise cost efficiency, speed, and 24/7 availability, consumer perceptions are divided, often oscillating between appreciation for convenience and dissatisfaction due to limitations (Ranieri et al., 2024). This review synthesizes prior research to explore consumer attitudes, focusing on convenience, frustration, trust, emotional impacts, and industry-specific contexts.

Consumer Preferences: AI Chatbots vs. Human Interaction

Consumers demonstrate mixed preferences when comparing AI chatbots with human agents. A survey by Uberall (2024) found that 80% of customers reported positive experiences with chatbots for simple, repetitive tasks, appreciating instant responses and round-the-clock availability. However, Chaudhry et al. (2024) noted that nearly 45% of U.S. adults expressed unfavorable views, with many preferring human representatives due to perceived empathy, thoroughness, and better problem-solving abilities. These findings suggest that while chatbots excel in transactional interactions, consumers still value the relational qualities offered by human agents.

Convenience and Efficiency

Convenience is the most consistent advantage attributed to AI chatbots. They provide immediate

responses, reduce wait times, and handle multiple inquiries simultaneously, enhancing accessibility and efficiency (López-López, 2025). Geana et al. (2025) further observed that consumers often turn to chatbots for sensitive or embarrassing inquiries, such as health-related questions, because the perceived anonymity reduces social discomfort. Similarly, Sidlauskienė et al. (2023) found that chatbots lower cognitive load by guiding users through structured processes, making repetitive interactions smoother.

Nevertheless, the literature highlights that this convenience is conditional. Azaga (2024) emphasized that consumer satisfaction is strongly tied to chatbot performance; when systems fail to deliver accurate or relevant responses, the benefits of immediacy are overshadowed by frustration.

#### Frustration and Trust: Two Sides of the Same Coin

A recurring theme across studies is that frustration and trust are deeply intertwined in shaping consumer attitudes toward chatbots. Common frustrations include repeated questioning, inability to handle complex or nuanced queries, and impersonal communication styles (Dewanti, Hidayanto, & Budiardjo, 2025). UJET (2022) reported that 80% of consumers experienced increased irritation when chatbots failed to resolve their concerns, often necessitating escalation to human agents. Such failures do not merely frustrate users - they undermine trust in the technology's competence.

Trust, in turn, is a decisive factor in determining whether consumers will continue using chatbots. Gu et al. (2024) demonstrated that perceived anthropomorphism (i.e., attributing human-like qualities), empathy, and interaction quality significantly enhance user trust, even after service failures. Conversely, expectancy violations, such as irrelevant or inaccurate responses, diminish trust and reduce willingness to engage (Cai et al., 2024). In essence, the same features that mitigate frustration - reliability, empathy, and adaptability - are also those that build trust.

This overlap highlights the need for businesses to address both issues together: reducing frustration by ensuring accurate, context-aware responses, while simultaneously fostering trust through human-like communication and transparent design.

#### Emotional and Social Dimensions

Beyond convenience and efficiency, emotional responses play a key role in shaping consumer attitudes. Geana et al. (2025) found that users preferred chatbots for emotionally sensitive contexts but gravitated toward humans when feeling angry or distressed. OpenAI and MIT Media Lab (2025) reported that heavy chatbot users often experienced increased loneliness and dependence, suggesting long-term social implications of overreliance on AI-mediated interactions. These findings indicate that while chatbots can be useful companions in specific situations, they cannot fully replicate the emotional intelligence and empathy provided by humans (Ozuem et al., 2024).

#### Industry-Specific Insights

Consumer responses to chatbots vary across industries, reflecting differences in task complexity and expectations. In e-commerce, chatbots are valued for efficiency, such as product searches and delivery updates (López-López, 2025). In food delivery services, they are effective in handling standardized tasks like order tracking (Plivo, 2023). However, in banking and healthcare, where accuracy, privacy, and empathy are critical, consumer skepticism is higher (Nogueira, 2025). Sidlauskienė et al. (2023) argued that industry context significantly determines acceptance, as consumers' tolerance for errors varies depending on perceived risk and emotional stakes.

#### Theoretical Perspectives: TAM and Algorithm Aversion

The Technology Acceptance Model (TAM) remains a valuable framework for analyzing consumer responses. It posits that perceived usefulness and ease of use strongly predict technology adoption (Azaga, 2024). In the case of chatbots, consumers engage positively when interactions are intuitive and helpful but disengage when systems appear cumbersome or unhelpful (Hsu et al., 2023).

Complementing TAM, the concept of algorithm aversion explains why consumers sometimes reject chatbots even when they are efficient. It is noted that users distrust automated systems when errors occur or when transparency is lacking, preferring human accountability despite potential inefficiencies. This aversion highlights the importance of building transparency and allowing users to escalate to human support when necessary.

#### Summary

Overall, the literature paints a picture of dual consumer attitudes: chatbots are appreciated for their convenience, privacy, and efficiency, but frustrations stemming from limited empathy, poor comprehension, and service failures erode trust. Importantly, frustration and trust are not separate issues but interlinked dimensions that must be addressed simultaneously. Industry-specific contexts further shape attitudes, with acceptance higher in low-risk, transactional sectors and lower in emotionally sensitive or high-stakes industries.

The evidence suggests that businesses should design chatbots that prioritize reliability, transparency, and emotional intelligence while adopting hybrid service models to combine the efficiency of AI with the empathy of human agents (Ranieri et al., 2024; Gu et al., 2024).

#### Research Methodology

This study adopts a secondary research approach to examine consumer attitudes toward AI chatbots in customer service. Secondary research, also known as desk research, involves the collection, synthesis, and analysis of existing data from credible sources, such as academic journals, industry reports, surveys, and case studies (Saunders et al., 2019). Given the scope of this study and the focus on understanding trends, perceptions, and experiences across industries, secondary research provides a comprehensive and time-efficient method for gathering relevant information.

#### Research Design

The research follows a descriptive and analytical design, aiming to describe consumer perceptions of AI chatbots while analyzing factors that contribute to convenience and frustration. Descriptive research helps identify patterns and trends in consumer attitudes, whereas analytical research provides insights into the underlying reasons for these behaviors (Creswell & Creswell, 2018). By integrating data from multiple studies, this research seeks to create a holistic understanding of consumer experiences with AI chatbots.

#### Data Sources

Data for this study was collected from peer-reviewed journals, industry white papers, company reports, and reliable online databases. Key sources included studies on consumer satisfaction with AI chatbots (Gu et al., 2024; Cai et al., 2024), reports

on technology adoption trends (López-López, 2025), and surveys analyzing emotional responses to chatbot interactions (Geana et al., 2025). Additionally, articles examining the theoretical frameworks of technology acceptance and algorithm aversion were reviewed to provide contextual understanding (Azaga, 2024; Dietvorst, Simmons, & Massey, 2015).

By relying on secondary sources, the research leverages existing knowledge and findings, ensuring that the analysis is grounded in validated empirical data. The selected sources were evaluated for credibility, relevance, and recency, with a focus on studies conducted within the last five years to capture contemporary trends in AI chatbot adoption and consumer behavior.

#### Data Analysis

The collected data was analyzed thematically, focusing on patterns related to consumer convenience, frustration, trust, emotional responses, and overall satisfaction with AI chatbots. Thematic analysis allows researchers to identify recurring themes and insights across multiple studies, providing a structured approach to interpreting qualitative and quantitative findings (Braun & Clarke, 2006). Key themes identified included the role of task complexity, anthropomorphism, personalization, and interaction quality in shaping consumer attitudes (Gu et al., 2024; Ranieri et al., 2024).

The research also incorporates comparative analysis across industries, examining how consumer perceptions differ in sectors such as banking, e-commerce, and food delivery services. This approach highlights industry-specific challenges and best practices, offering practical insights for businesses aiming to improve chatbot implementation.

#### Limitations

While secondary research provides valuable insights, it is limited by the availability and quality of existing studies. Some research may have contextual biases, limited sample sizes, or differences in methodology, which can affect the generalizability of findings (Saunders et al., 2019). Additionally, the study relies on published data, which may not fully capture emerging trends or real-time consumer experiences. Despite these limitations, secondary research remains an effective

method for understanding consumer attitudes and informing further primary research if needed.

## FINDINGS AND ANALYSIS

The synthesis of secondary research reveals that consumer attitudes toward AI chatbots in customer service are shaped by a combination of convenience, frustration, trust, emotional responses, and industry-specific factors. While chatbots have become central to many organizations' customer service strategies, consumer reactions remain ambivalent, reflecting both appreciation and skepticism (Ranieri et al., 2024).

### 1. Convenience and Accessibility

Consumers consistently highlight convenience as the primary benefit of AI chatbots. They are valued for their 24/7 availability, immediacy, and efficiency in handling routine inquiries such as FAQs, order tracking, or account information (López-López, 2025). Uberall (2024) reported that 80% of consumers had positive experiences with chatbots, particularly when interactions were simple and transactional. Additionally, chatbots reduce social discomfort in sensitive situations. For example, Geana et al. (2025) found that users were more comfortable discussing embarrassing health concerns with chatbots than with human agents.

This convenience, however, is conditional. When chatbots fail to provide accurate or relevant responses, consumer satisfaction quickly declines, showing that speed alone is not enough to sustain positive experiences (Azaga, 2024).

### 2. Frustration in Use

Despite their advantages, many consumers report frustration when interacting with chatbots. Common complaints include repetitive questioning, inability to handle complex queries, and lack of empathy (Dewanti, Hidayanto, & Budiardjo, 2025). UJET (2022) found that 80% of users experienced greater irritation when their issues were unresolved by chatbots, often forcing escalation to human agents. Such failures not only increase dissatisfaction but also discourage consumers from using chatbots in the future (Ozuem et al., 2024).

These frustrations are especially prominent in high-stakes contexts such as finance or healthcare, where errors or delays can have significant consequences (Nogueira, 2025).

### 3. Trust and Reliability

Trust is central to consumer acceptance of AI chatbots. Chatbots that display empathy, consistent accuracy, and anthropomorphic qualities (e.g., polite greetings, adaptive responses) are more likely to inspire trust and continued engagement (Gu et al., 2024). Conversely, expectancy violations - when responses deviate from user expectations - reduce both trust and satisfaction (Cai et al., 2024).

Importantly, trust and frustration are closely linked. Repeated failures or impersonal interactions undermine reliability and fuel frustration, while empathetic and accurate responses build trust and mitigate negative reactions (Ranieri et al., 2024). This interdependence highlights the need to address both dimensions simultaneously in chatbot design.

### 4. Emotional and Social Dimensions

Emotional responses strongly influence consumer perceptions. Geana et al. (2025) showed that users prefer chatbots for private or embarrassing issues but turn to humans when they feel angry or distressed. Similarly, OpenAI and MIT Media Lab (2025) found that heavy chatbot users reported higher loneliness and emotional dependence, raising concerns about long-term social effects.

These findings suggest that while chatbots can meet functional needs, they fall short in delivering the empathy and emotional intelligence that many consumers expect in stressful or sensitive situations (Ozuem et al., 2024). Businesses that design chatbots with emotional awareness and escalation options may be better positioned to balance efficiency with consumer well-being.

### 5. Industry-Specific Variations

Consumer attitudes vary across industries. In e-commerce and food delivery, chatbots are often praised for their speed and ability to handle standardized tasks such as product searches and order tracking (Plivo, 2023; López-López, 2025). In contrast, in banking and healthcare, where accuracy, privacy, and empathy are essential, skepticism and frustration are more common (Nogueira, 2025; Sidlauskienė et al., 2023).

A recurring insight is that task complexity significantly shapes consumer acceptance. Chatbots are well-suited for routine, low-risk tasks but less effective for complex or emotionally charged issues (Hsu et al., 2023). Rather than repeating this point

across sections, the overall evidence suggests that consumers implicitly segment chatbot use by task type, reserving trust for low-complexity scenarios and preferring human agents for high-stakes interactions.

## 6. Patterns and Implications

The findings highlight a dual consumer perception of chatbots. They are valued for efficiency, speed, and privacy but criticized for lack of empathy, failure to handle complexity, and trust issues (Ranieri et al., 2024; Gu et al., 2024). The following patterns are most prominent:

- Chatbots succeed when tasks are routine and transactional.
- Positive perceptions are linked to accuracy, personalization, and transparency.
- Frustration arises when consumers perceive rigid scripts or unresolved problems.
- Emotional and industry-specific contexts strongly influence adoption.

These insights indicate that businesses cannot rely on a one-size-fits-all approach. Instead, chatbot strategies should be tailored to context, emphasizing hybrid service models where humans complement AI to address complex or sensitive interactions (Azaga, 2024; Hsu et al., 2023).

### SUMMARY OF FINDINGS

In summary, AI chatbots offer consumers clear advantages in terms of convenience, efficiency, and anonymity. Yet frustrations, particularly around complexity and empathy, remain significant barriers to satisfaction. Trust and frustration are not isolated issues but interlinked dimensions that shape adoption and engagement. Industry context and task type further moderate consumer attitudes, suggesting that chatbots should be positioned as complements, rather than replacements, for human service agents. When implemented thoughtfully - with attention to accuracy, transparency, and emotional intelligence - chatbots can enhance customer experience while supporting organizational efficiency and loyalty (Ranieri et al., 2024; Geana et al., 2025).

### Conclusion and Implications

The analysis of secondary research indicates that consumer attitudes toward AI chatbots in customer service are multifaceted, balancing perceived

convenience against frustration and emotional responses. Consumers generally appreciate chatbots for their speed, availability, and efficiency, particularly for routine or transactional tasks such as order tracking, product inquiries, or general information requests (López-López, 2025; Plivo, 2023). AI chatbots also offer privacy benefits, enabling users to engage in sensitive interactions, such as health-related or financial inquiries, without fear of judgment (Geana et al., 2025).

However, the literature demonstrates that chatbots often generate frustration when they fail to comprehend complex queries, provide repetitive or inaccurate responses, or lack empathy (Dewanti, Hidayanto, & Budiardjo, 2025; Ozuem et al., 2024). Trust and reliability are critical determinants of user satisfaction, with consumers favoring chatbots that demonstrate anthropomorphic qualities, empathetic behavior, and consistency in responses (Gu et al., 2024; Cai et al., 2024). Failure to meet these expectations can result in reduced engagement, negative emotional reactions, and preference for human agents (Ranieri et al., 2024).

The findings also reveal that industry context significantly shapes consumer attitudes. Chatbots are most effective in industries like e-commerce and food delivery, where tasks are standardized and low-risk (Plivo, 2023; López-López, 2025). In contrast, banking and healthcare consumers exhibit higher scrutiny, prioritizing accuracy, security, and personalized attention (Nogueira, 2025; Sidlauskiene et al., 2023). These observations suggest that a one-size-fits-all approach to AI chatbot deployment is inadequate and highlight the importance of context-aware design.

From a theoretical perspective, the Technology Acceptance Model (TAM) provides insights into adoption behaviors, emphasizing that perceived usefulness and ease of use are strong predictors of engagement (Azaga, 2024). Additionally, the phenomenon of algorithm aversion explains why some consumers may distrust chatbots even when performance is objectively superior to human agents, particularly when the system lacks transparency or accountability (Dietvorst, Simmons, & Massey, 2015).

Implications for businesses are clear. While AI chatbots offer substantial operational efficiency and cost benefits, their effectiveness depends on carefully balancing automation with human

intervention. Organizations must recognize the limitations of chatbots, particularly in emotionally sensitive or complex service interactions, and prioritize trust, transparency, and personalized engagement to enhance user satisfaction (Gu et al., 2024; Geana et al., 2025). Failure to address these aspects may lead to reduced adoption, negative word-of-mouth, and diminished brand loyalty.

#### RECOMMENDATIONS

Based on the findings and implications, the following recommendations are proposed for organizations adopting AI chatbots in customer service:

##### Adopt Hybrid Service Models

Combine AI chatbots with human agents, ensuring smooth escalation for complex or emotionally sensitive issues. This balances efficiency with empathy (Azaga, 2024).

##### Enhance Personalization and Empathy

Equip chatbots with human-like traits such as polite greetings, adaptive responses, and empathetic tone to build trust and reduce frustration (Gu et al., 2024).

##### Assign Chatbots to Suitable Tasks

Use chatbots primarily for routine, repetitive, and low-risk interactions. Reserve human agents for nuanced or high-stakes cases, such as financial disputes or health-related concerns (Hsu et al., 2023).

##### Ensure Accuracy and Transparency

Prioritize high-quality, consistent responses and communicate system limitations clearly. Providing transparency reduces algorithm aversion and strengthens consumer confidence (Cai et al., 2024).

##### Continuously Monitor and Improve

Collect user feedback and track performance metrics to refine chatbot design, improve natural language processing, and enhance user satisfaction over time (Ranieri et al., 2024).

##### Customize by Industry Context

Tailor chatbot features to industry-specific needs. For example, accuracy and security should be prioritized in banking, while speed and convenience are more critical in e-commerce and food delivery (Sidlauskienė et al., 2023).

#### Integrate Emotional Intelligence Features

Incorporate sentiment analysis and emotion-recognition tools to allow chatbots to detect user frustration and adjust responses or escalate accordingly (Geana et al., 2025).

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