

Do consumers trust the Bot? A study of consumer trust in conversational AI Systems

Aamna Abdin

Thapar Institute of Engineering and Technology, Punjab, India

Md. Shah Nawaz Abdin

Department of Management, SMBS, Jamia Hamdard, New Delhi, India

Keywords

Brand Communication, Consumer Trust, Conversational AI, Human-AI Interaction, Operational Efficiency, Personalisation

Abstract

Conversational AI systems such as chatbots and virtual assistants have taken customer interaction by storm. Businesses can integrate these customisable chatbots into various customer service channels, including messaging apps, social media platforms, and live chat. From Amazon's chatbot, which replaces the human aspect of customer service, to AI-powered refrigerators that create recipes, these technologies promise efficiency and scalability. However, they raise an important question: Do consumers trust these bots? This review paper critically examines existing academic literature on consumer trust in Conversational AI systems, focusing on how trust is formed, maintained, and sometimes eroded during human-AI interactions.

The study adopts a literature survey approach, drawing from peer-reviewed research across marketing, psychology, and human-computer interaction. It identifies key trust factors such as perceived competence, emotional intelligence, transparency, and personalisation. Despite growing interest in the field, research still has some important gaps. There is a limited understanding of how trust develops over time; little attention is paid to how trust can be repaired after things go wrong, and very few studies look at cultural differences in how people relate to AI. This review stresses the need to design Conversational AI systems that are efficient, trustworthy, human-centred, and ethically responsible.

Introduction

Conversational [artificial intelligence](#) (AI) has been defined and conceptualized as “the study of techniques for creating software agents that can engage in natural conversational interactions with humans” (Khatri et al., 2018).

Conversational AI systems such as chatbots and virtual assistants have taken customer interaction by storm. They have revolutionised how customers interact with brands. The rise of Conversational AI in consumer contexts has transformed how businesses and customers interact. Over the past few years, advancements in natural language processing and machine learning have enabled chatbots, virtual assistants, and other conversational agents to engage with consumers in increasingly sophisticated ways, from Amazon's chatbot, which replaces the human aspect of customer service, to AI-powered refrigerators that create recipes.

Voice-activated assistants like Amazon's Alexa and Google Assistant have allowed consumers to engage with technology hands-free, making shopping more accessible. However, these advancements also bring significant concerns around privacy and trust. Many consumers are wary of sharing personal information with AI systems, raising important questions about data security and the ethical use of AI in marketing and customer service.

Relevance of Trust in Human-AI Interactions

Customer service is seen as a vital aspect of successful business; it directly affects customer retention, brand loyalty, and credibility. Traditionally, direct communication with human agents dominated this service realm, where an agent's presence means personalized intervention and response to customers. However, as AI is advancing at an impressive rate, businesses are steering toward AI-driven chatbots

intended to manage customer inquiries, automate the chatting response process, and generally streamline efficiency.

When consumers trust a brand's AI systems, customer retention becomes easy. Trust influences how consumers engage with technology and make decisions based on AI-driven recommendations and services. In Conversational AI - such as chatbots and virtual assistants - trust directly influences adoption rates, user satisfaction, and long-term acceptance. Trust significantly impacts whether users are willing to adopt and utilise AI systems. Consumers are often less likely to engage with technology they do not trust, which hinders AI's capacity to enhance customer experiences and refine business operations.

Consumers must feel confident that AI systems will securely and ethically handle their information. High trust levels are directly proportional to increased willingness to share data. This shared data can further improve the quality of personalisation and service delivery - a key factor in digital marketing. Startups and businesses have started to increasingly rely on AI tools - such as ChatGPT for content generation or Canva's AI assistant for targeted marketing campaign designs - entrusting them with sensitive business information. This trend reflects operational reliance and growing institutional trust in AI capabilities.

Relevance of Studying Trust in Conversational AI

The rapid integration of Conversational AI into everyday customer experiences highlights the need to study trust in these systems. For instance, Bank of America's Erica - a virtual assistant that leverages natural language processing to deliver personalised financial advice - has handled over 330 million customer requests as of mid-2023, with 60% of user engagements being proactive and personalised. This scale of interaction is only possible because users trust Erica to manage sensitive financial tasks such as bill payments and account tracking (Tyagi, 2024).

KLM Royal Dutch Airlines' BlueBot chatbot, integrated into platforms like WhatsApp and Messenger, assists with booking tickets and checking flight statuses. BlueBot is particularly effective because it builds user trust through clear, consistent communication, seamless handovers to human agents when needed, and the ability to recall prior interactions. This sense of continuity and reliability has allowed KLM to handle double the number of bookings.

Similarly, Lemonade's Maya, an insurance chatbot, has processed over 1.2 million policies in just three years by offering a friendly, empathetic interface that mirrors human advisors. Users trust Maya with product queries and important insurance purchase decisions, making trust a central enabler of adoption (Tyagi, 2024). As Conversational AI takes on increasingly personal roles, from finance to healthcare, understanding and building trust becomes critical for user acceptance and long-term success.

Summary of Gaps in Existing Literature

Although Conversational AI has been widely adopted across industries, existing literature focuses more on functional capabilities - task completion, response speed, and cost efficiency - than on the nuanced factors influencing consumer trust. Emotional aspects like empathy, relational cues, and perceived transparency are often underexplored or treated as secondary considerations. Furthermore, most studies rely on short-term experimental settings or limited case studies, restricting understanding of how trust evolves. There is also minimal attention paid to how cultural, generational, and contextual differences impact trust in AI-driven communication.

Aim and Contribution of the Paper

This paper aims to critically review and synthesise existing academic research on consumer trust in Conversational AI systems. It contributes to the literature by organising findings across interdisciplinary studies - spanning marketing, psychology, and human-computer interaction - and identifying key drivers of trust such as competence, human likeness, ethical data use, and emotional responsiveness. By highlighting gaps in longitudinal, cross-cultural, and real-world chatbot applications, the paper offers a clearer understanding of what makes AI systems trustworthy from a consumer perspective. This review also provides actionable insights for designers, marketers, and researchers aiming to build more ethical and user-centred Conversational AI.

Literature Review

Several studies have explored the evolving role of Conversational AI in shaping user experience, emotional engagement, and trust in consumer-facing technologies. Dobbala and Lingolu (2024) examine how Conversational AI and chatbots enhance user experience across industries by offering accessibility, 24/7 assistance, and personalised responses. However, they also identify critical challenges that impact trust - such as limited contextual understanding, language ambiguity, and ethical concerns surrounding data privacy. The authors argue that for trust to be maintained, conversational agents must integrate emotional intelligence, feedback mechanisms, and secure design features like encryption.

In a regional context, Mustafa (2024) explores how chatbots are used in food delivery apps like Zomato, Talabat, and Deliveroo in the UAE. While users generally appreciated the speed and convenience chatbots offered for handling simple tasks, many were frustrated when the bots failed to understand context, gave irrelevant answers, or could not handle more complex issues. The study highlights that trust in these systems is not just about whether they work - it also depends on how well the chatbot understands the user's intent and adjusts its tone and responses accordingly. This supports the broader view that human-like communication is key to building trust with Conversational AI.

Similarly, Huseynov (2023) looks at how chatbots are used in digital marketing and customer service, showing that they improve user experience and help companies reduce costs. The study points out that the most effective chatbots sound natural, hold a conversation smoothly, and stay true to the brand's voice - making users feel like they are talking to a real person rather than a machine. The paper argues that trust is influenced by how well chatbots can create seamless, personalised experiences that feel coherent with the brand's voice across channels.

Focusing on the emotional dimension of trust, Ltifi (2023) investigates how consumers perceive and respond to chatbots in hedonic and utilitarian contexts. Interestingly, the research notes that chatbot transparency (i.e., when users know they are speaking with a bot) can either increase or decrease trust, depending on how naturally the system communicates.

Adding to this, Manic (2023) explores how conversational AI enhances marketing processes through rapid content creation, targeted email campaigns, and real-time research insights. While emphasizing AI's operational advantages, the study warns that its success relies on maintaining ethical standards and verifying content credibility, thus tying trust to both efficiency and integrity.

Israfilzade and Sadili (2024) examine the role of generative AI and anthropomorphism in conversational marketing. Their framework shows how human-like traits in AI-such as adaptive tone, emotional intelligence, and contextual understanding-can boost user trust, but may also lead to ethical dilemmas if users are not fully aware they are interacting with a machine.

Ramadas and Begam (2023) offer a regional perspective, reviewing customer engagement with AI tools in Chennai, India. They argue that cultural and linguistic differences deeply shape user trust and satisfaction. Their findings reinforce the importance of tailoring AI interactions to local preferences and expectations. Reinhard et al. (2025) conduct a systematic literature review on brand identity in AI-powered conversational design. Their research underlines that AI interfaces that reflect brand values-via tone, design, and interaction style - can foster trust and reinforce customer-brand relationships. They also note the lack of clear frameworks for embedding branding principles in AI design.

Finally, Surikova, Siroda, and Bhattarai (2022) examine the role of artificial intelligence in shaping brand voice through multimedia platforms. The study introduces the concept of a "brand voice life cycle" and explores how Conversational AI contributes to establishing a brand's personality across channels. The authors highlight that despite growing reliance on AI to drive branding efforts, there is no guideline on how AI should be ethically and effectively integrated into brand communication.

Nicolescu and Tudorache (2022) provide a systematic literature review of human-computer interaction in customer service, highlighting how customer experience with chatbots is shaped by three clusters of factors: chatbot-related (functionality, design, anthropomorphism), customer-related (trust, expectations), and context-related (industry, urgency). Their study reveals that chatbot effectiveness in problem resolution and relevance of responses has a direct impact on continued usage and brand loyalty.

Fionah (2024) investigates AI's role in customer relationship management (CRM), arguing that AI chatbots and virtual assistants significantly enhance customer interaction by offering real-time,

personalized services. The study also addresses the ethical concerns of AI in CRM systems, emphasizing that transparency, privacy, and accountability are essential for consumer trust in AI-based customer service platforms. Lastly, Nicolescu and Tudorache (2022) emphasise that customer satisfaction largely depends on how effectively AI chatbots handle queries and how closely they can mimic human interaction. This is consistent with the view that affective factors like emotional tone, personalisation, and continuity of

S.No.	Author(s)	Year	Key Findings
1	Dobbala & Lingolu	2024	Conversational AI enhances UX through accessibility, 24/7 assistance, and personalization. Trust challenges include limited contextual understanding, language ambiguity, and data privacy. Trust is maintained by integrating emotional intelligence, feedback mechanisms, and secure design.
2	Mustafa	2024	(UAE context) Chatbots in food delivery apps offer speed and convenience for simple tasks. Frustration arises from context misunderstanding, irrelevant answers, and inability to handle complex issues. Trust depends on intent understanding and adaptable tone/responses, supporting the view that human-like communication is key.
3	Huseynov	2023	Chatbots in digital marketing and customer service improve UX and reduce costs. Effective chatbots sound natural, converse smoothly, and maintain brand voice.
4	Ltifi	2023	Empathy, friendliness, and emotional relatability significantly influence trust in chatbot interactions. Transparency can either increase or decrease trust depending on natural communication.
5	Manic	2023	Conversational AI enhances marketing through rapid content creation, targeted campaigns, and real-time insights. Success relies on maintaining ethical standards and verifying content credibility, linking trust to efficiency and integrity.
6	Israfilzade & Sadili	2024	Human-like traits (adaptive tone, emotional intelligence, contextual understanding) in generative AI can boost user trust in conversational marketing. However, this may lead to ethical dilemmas if users are unaware they are interacting with an AI.
7	Ramadas & Begam	2023	(Chennai, India context) Cultural and linguistic differences deeply shape user trust and satisfaction with AI tools. Tailoring AI interactions to local preferences and expectations is crucial.
8	Reinhard et al.	2025	AI interfaces reflecting brand values (tone, design, interaction style) foster trust and reinforce customer-brand relationships. There is a lack of clear frameworks for embedding branding principles in AI design.
9	Surikova, Siroda, & Bhattarai	2022	AI shapes brand voice across multimedia platforms, contributing to brand personality ("brand voice life cycle"). A structured academic framework for ethical and effective AI integration in brand communication is needed.
10	Nicolescu & Tudorache	2022	Customer experience with chatbots is shaped by chatbot-related (functionality, design, anthropomorphism), customer-related (trust, expectations), and context-related (industry, urgency) factors. Chatbot effectiveness in problem resolution and response relevance directly impacts continued usage and brand loyalty.
11	Fionah	2024	AI chatbots and virtual assistants enhance customer interaction in CRM by offering real-time, personalized services. Transparency, privacy, and accountability are essential for consumer trust in AI-based customer service platforms.
12	Nicolescu & Tudorache	2022	Customer satisfaction hinges on AI chatbots' query resolution and human-like engagement. Affective factors like emotional tone, personalization, and continuity of interaction are critical for long-term trust and satisfaction.

interaction remain critical in building long-term trust and satisfaction.

TABLE 1: Summary of Key Findings from Reviewed Literature on Consumer Trust in Conversational AI Systems

Research Methodology

This study adopts a structured literature review approach to investigate the formation and dynamics of consumer trust in Conversational AI systems. A comprehensive search was conducted across multiple academic databases, including Springer, Research Gate, to identify peer-reviewed articles published between 2018 and 2025. The keywords used for retrieval included combinations of “Conversational AI,” “consumer trust,” “branding,” and “user engagement.”

Discussions and Conclusions

This review paper examined how trust is formed, sustained, and sometimes eroded in consumer interactions with Conversational AI systems, such as chatbots and virtual assistants. Drawing from interdisciplinary literature, the review identified several key factors that influence trust, including perceived competence, transparency, emotional responsiveness, and the ability of AI to replicate human-like interactions.

While Conversational AI has enhanced customer experience and operational efficiency, the findings suggest that functionality alone is insufficient - trust remains a critical enabler of adoption and long-term engagement. Emotional and relational dimensions, such as empathy and personalization, are crucial to user satisfaction but often underexplored. Furthermore, existing literature rarely investigates trust repair after failures or explores how trust evolves across repeated interactions in real-world settings.

The importance of understanding cultural and demographic diversity in trust perception also emerged as a key theme. Many systems are designed for Western audiences, with little attention to cross-cultural nuances or digital literacy levels. Overall, trust in Conversational AI is not merely a technical issue but a complex, ongoing relationship shaped by human psychology, cultural expectations, and ethical considerations.

Limitations and Direction for Future Research

While recent studies highlight the growing role of Conversational AI in enhancing customer experience, efficiency, and brand communication, several critical gaps remain in the current literature. Many existing works focus heavily on technical performance and functionality, such as the ability to resolve basic queries or simulate human dialogue (Mustafa, 2024; Huseynov, 2023), but give limited attention to how trust is built and maintained over time, particularly in emotionally sensitive or complex customer interactions.

There is also a noticeable underrepresentation of emotional and relational dimensions of chatbot trust. Although Ltifi (2023) explores empathy and emotional engagement as trust drivers, such studies are still relatively rare. Most papers assess user satisfaction or usability without fully exploring the psychological processes behind how trust is formed or eroded in human-AI interactions. Moreover, there is a lack of longitudinal and real-world deployment studies. Much of the existing research is based on one-time surveys or isolated case studies (e.g., Mustafa, 2024), which limits our understanding of long-term trust dynamics, especially for business sectors like banking, healthcare, or insurance.

Lastly, there is minimal cross-cultural research, with most studies focused on Western or single-region contexts. Broader, comparative research is needed to understand how trust in Conversational AI varies across demographics, cultures, and digital literacy levels. These gaps underscore the need for more interdisciplinary, long-term, and user-centred research that measures technical success and examines how trust is earned, sustained, and repaired in Conversational AI systems.

To address these gaps, future research should prioritise longitudinal studies that track trust over repeated interactions and cross-cultural investigations to understand diverse consumer expectations. Developers and businesses should focus on designing Conversational AI systems that are efficient, empathetic, transparent, and adaptable. Ethical guidelines for AI use - mainly in data handling, bot disclosure, and decision-making transparency - are essential to build and maintain trust at scale. By placing trust at the centre of AI design and deployment, organisations can unlock the full potential of conversational technologies in consumer engagement.

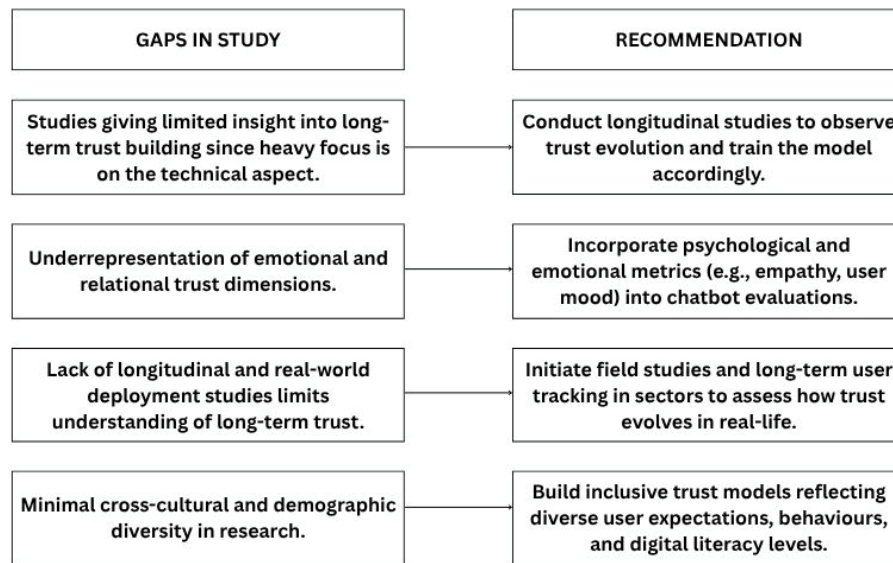


FIGURE 1: Summary of Research Gaps Identified in the Literature and Corresponding Recommendations for Future Research Directions

References

- Baabdullah, M., Alalwan, A.A., Algharabat, R.S., et al., 2022. Virtual agents and flow experience: An empirical examination of AI-powered chatbots. *Technological Forecasting and Social Change*, Elsevier.
- Dobbala, S. and Lingolu, S., 2024. Conversational AI and chatbots: Enhancing user experience on websites.
- Fionah, M.J., 2024. Harnessing artificial intelligence in customer relationship management: Transforming customer interactions and business performance. *Research Invention Journal of Current Issues in Arts and Management*.
- Huseynov, R., 2023. Chatbots in digital marketing: Enhanced customer experience and reduced service costs. In: R. Huseynov, ed., *Emerging Applications of Artificial Intelligence in Customer Experience Management*.
- Israfilzade, M. and Sadili, S., 2024. Beyond interaction: Integrating generative AI and anthropomorphism in conversational marketing. *Journal of Artificial Intelligence in Business*.
- Khatri, C., Venkatesh, A., Hedayatnia, B., Ram, A., Gabriel, R. and Prasad, R., 2018. Alexa Prize – State of the Art in Conversational AI. *AI Magazin*.
- Ltifi, H., 2023. Trust in the chatbot: A semi-human relationship. *Journal of Relationship Marketing*.
- Lopez-Lopez, D. and Iniesta, M.B., 2025. The impact of conversational AI on consumer decision-making: A systematic review and cluster analysis. *International Journal of Engineering Business Management*.
- Manic, M., 2023. The role of generative AI in redefining marketing workflows. *IEEE Technology & Society Magazine*.
- Mustafa, A., 2024. Exploring the role of AI in customer service communication: A case study on chatbots in delivery apps in UAE.
- Niculescu, L. and Tudorache, M.T., 2022. Human-computer interaction in customer service: The experience with AI chatbots-A systematic literature review. *Electronics*.
- Ramadas, R.B. and Begam, G.S., 2023. Exploring the effects of conversational marketing and artificial intelligence on customer engagement: A comprehensive literature review. *Tuijin Jishu/Journal of Propulsion Technology*.
- Reinhard, P., Karst, F.S., Li, M.M., Dittmar, A. and Leimeister, J.M., 2025. Integrating brand identity into AI-based conversational agents: A systematic literature review. In: *Proceedings of the 58th Hawaii International Conference on System Sciences (HICSS)*.
- Surikova, J., Siroda, S. and Bhattarai, B., 2022. The role of artificial intelligence in the evolution of brand voice in multimedia. *Molung Educational Frontier*.
- Tyagi, A., 2024. 15 best chatbot examples of implementing Conversational AI strategy. *Sprinklr*.