

RESEARCH ARTICLE

Influence of Chatbot Experience on Consumer Trust in Conversational Commerce

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ABSTRACT

The rapid adoption of artificial intelligence (AI) chatbots in retail has transformed the nature of online customer engagement, yet trust remains a key challenge for conversational commerce. This study investigates the influence of chatbot experience on consumer trust and examines the moderating role of interaction frequency among chatbot users in Kerala. Data were collected from 100 respondents using a structured questionnaire that employed validated scales for chatbot experience and trust. Linear regression results revealed that chatbot experience significantly predicts trust in chatbots ($\beta = 0.634$, $p < .001$), explaining 41% of the variance in trust. However, moderation analysis using the *medmod* module in Jamovi 2.6.44 showed that interaction frequency does not significantly moderate this relationship ($\beta = -0.0735$, $p = .262$). These findings suggest that while

an enhanced chatbot experience fosters greater consumer trust, repeated interaction alone does not strengthen this association. The study contributes to the growing body of literature on conversational commerce by emphasising the primacy of experiential quality—usability, personalisation, responsiveness, and satisfaction—over usage frequency in building trust toward AI-based service agents. Practical implications highlight the need for marketers to design emotionally intelligent, context-aware chatbots that deliver human-like, value-adding experiences to sustain long-term consumer engagement.

Keywords: chatbot experience; trust; conversational commerce; interaction frequency

FULL PAPER

Introduction

The integration of conversational artificial intelligence (AI) in retail has transformed how consumers interact with brands, giving rise to conversational commerce—a form of online commerce in which chatbots facilitate product search, information sharing, and transactions through natural language (Adam et al., 2021). These AI-powered agents promise efficiency, personalisation, and real-time service, yet many consumers remain hesitant to rely on them due to concerns about accuracy, empathy, and trustworthiness (Luo et al., 2019). In such a context, trust becomes a cornerstone for consumer acceptance and continued engagement in chatbot-based shopping environments (McKnight et al., 2002).

Trust, a key determinant of online purchase behaviour (Gefen et al., 2003), develops through consumers' perceptions of chatbot experience, encompassing usability, personalisation, responsiveness, and affective quality (Chung et al., 2020). A positive chatbot experience—one that feels intuitive, human-like, and responsive—can significantly enhance users' confidence in the system and willingness to engage (Araujo, 2018; Grewal et al., 2020). Conversely, impersonal or error-prone interactions can erode confidence and hinder adoption. As conversational commerce continues to evolve, examining how the quality of chatbot experience

influences consumer trust has become central to both research and practice (Hoyer et al., 2020).

While experience quality shapes trust, scholars have also begun to explore how interaction frequency—the number of times consumers engage with chatbots—affects this relationship. Frequent interaction is expected to enhance familiarity and reduce uncertainty, thereby reinforcing trust (Lee & See, 2004). Regular exposure to chatbot interfaces could allow consumers to adjust their expectations, recognise system capabilities, and perceive improved competence over time (Glikson & Woolley, 2020). However, empirical evidence on its moderating influence remains inconclusive. In some cases, repeated exposure may not strengthen trust if users' experiences remain impersonal or fail to meet relational expectations (Adam et al., 2021). This indicates that interaction frequency alone may be insufficient to moderate the link between chatbot experience and trust without qualitative improvements in interaction quality.

Hence, this study investigates how chatbot experience shapes consumer trust in conversational commerce and examines whether interaction frequency moderates this relationship. The findings contribute to understanding the nuanced role of consumer–chatbot engagement dynamics and provide actionable insights for designing trust-enhancing conversational interfaces in the digital retail landscape.

Literature Review: Conversational Commerce and AI Chatbots

Conversational commerce (c-commerce) integrates artificial intelligence (AI), natural language processing (NLP), and instant messaging platforms to enable real-time interactions between consumers and brands. Chatbots serve as digital sales representatives, providing assistance, recommendations, and transactional support. Adam et al. (2021) emphasise that AI-based chatbots enhance convenience and speed in digital shopping environments by providing personalised service at scale. Despite these benefits, many consumers continue to express scepticism about chatbot reliability and emotional competence, leading to resistance in adoption (Luo et al., 2019). The growing emphasis on AI-driven customer engagement also reflects a broader trend toward human–machine collaboration, where chatbots complement human agents rather than replace them. In this sense, conversational commerce is not merely a technological innovation but a service paradigm that redefines customer experience by blending automation with empathy. As scholars note, the success of chatbots in retail contexts depends on their ability to simulate social presence and build relational trust through meaningful and context-aware communication (Araujo, 2018; Grewal et al., 2020). Therefore,

while conversational commerce offers efficiency and scalability, its true potential lies in creating authentic and emotionally resonant interactions that enhance user trust and satisfaction.

Chatbot Experience as a Determinant of Consumer Trust

Chatbot experience is a multidimensional construct encompassing usability, personalisation, responsiveness, and satisfaction. Research suggests that a positive user experience enhances perceptions of credibility and emotional comfort, which are foundational for trust development (Hoyer et al., 2020). Usability reflects how easily users can navigate chatbot interfaces; high usability increases perceived control and reduces cognitive effort, fostering greater trust (Araujo, 2018). Personalisation—where chatbots tailor messages and recommendations to user preferences—enhances relational value and perceived empathy, further strengthening trust (Chung et al., 2020). Responsiveness, defined by the chatbot’s speed and relevance in answering queries, signals competence and reliability (Grewal et al., 2020). Satisfaction, as an affective evaluation of the interaction, mediates the relationship between experience quality and trust (Gefen et al., 2003). A well-designed chatbot experience not only improves task efficiency but also evokes a sense of being understood and valued, reinforcing users’ emotional attachment to the service. When chatbots exhibit user-centric and contextually adaptive behaviour, they bridge the technological–emotional divide, allowing consumers to perceive them as credible, capable, and trustworthy service partners (Hoyer et al., 2020). Consequently, the overall quality of chatbot experience becomes a decisive factor in determining whether users will extend trust toward AI-driven service agents and continue engaging in conversational commerce (Glikson & Woolley, 2020).

Trust Formation in Conversational Commerce

Trust plays a pivotal role in mitigating risk and uncertainty in technology-mediated exchanges. McKnight et al. (2002) define trust in digital contexts as a combination of perceptions of integrity, competence, and benevolence toward the system. In conversational commerce, the non-human nature of chatbots makes the trust process more complex, as users must transfer social expectations of human interaction onto AI systems (Glikson & Woolley, 2020). Studies have shown that human-like qualities such as empathy, warmth, and anthropomorphism can increase user trust (Araujo, 2018), while excessive automation or scripted replies can reduce it. Luo et al. (2019) highlight that disclosure of a chatbot’s identity also affects trust—users respond more positively when transparency and consistency are

maintained throughout the interaction. Furthermore, trust development in conversational commerce is often gradual, evolving through repeated exposure, consistent performance, and emotionally satisfying interactions (Lee & See, 2004). Research suggests that perceived social presence and authenticity in chatbot communication strengthen both cognitive and affective dimensions of trust, making users more comfortable relying on AI-mediated recommendations (Hoyer et al., 2020). Thus, cultivating trust requires a balance between technological reliability and emotional resonance—an alignment that allows users to experience both efficiency and empathy in their digital interactions (Grewal et al., 2020).

Interaction Frequency and Trust Development

Interaction frequency—the extent to which users repeatedly engage with chatbots—has been proposed as a factor influencing trust. Lee and See (2004) argue that repeated exposure to an automated system fosters familiarity, reduces uncertainty, and enhances trust through learning effects. However, studies indicate that repetition without improvement in service quality may not enhance trust but instead lead to disengagement (Adam et al., 2021). Similarly, Glikson and Woolley (2020) emphasise that trust in AI depends more on the quality of interaction than on frequency, as consistent, emotionally intelligent communication builds reliability and rapport. This aligns with empirical evidence showing that interaction frequency may not significantly moderate the relationship between chatbot experience and consumer trust when chatbots fail to deliver human-like communication or contextual understanding (Hoyer et al., 2020).

Methods

The study was conducted among chatbot users in Kerala. A structured questionnaire was circulated online to collect data during January 2025. 100 responses were received for the questionnaire.

The questionnaire included validated scales for measuring constructs from the previous literature. Chatbot experience was measured using the Chatbot Usability Scale by Borsci et al. (2022). Trust in chatbot was measured using a three-item scale by Gu et al. (2009). Items were measured using a five-point Likert scale, with responses ranging from strongly disagree to agree strongly.

To test the common method bias, Harman's single-factor test was conducted. The resulting factor explained only 27.9% of the variance in the data, which was below 50%. So, the data has no serious issue of common method bias. The reliability of the scales was measured using Cronbach's alpha, with values of 0.832 and 0.829, both above the threshold of 0.7.

Results

Table 1: Demographic profile

Characteristics	Percentage (n = 100)
Gender	
Female	70%
Male	30%
Age	
18 – 24	62%
25 – 34	27%
Above 35	11%
Education	
High school / Diploma	10%
UG	50%
PG	40%

Source: Primary data (2025)

The demographic profile of the respondents is as follows (Table 1). The demographic profile indicates that the majority of respondents are female (70%), while males constitute 30% of the sample. Most participants fall within the 18–24-year age group (62%), followed by the 25–34-year age group (27%), suggesting a predominantly young respondent base. In terms of education, half of the respondents hold an undergraduate degree (50%), while 40% have postgraduate qualifications, reflecting a well-educated sample.

To understand the influence of chatbot experience on trust in chatbot, a linear regression was done. The regression results in Table 2 show that chatbot experience (EX) significantly predicts trust in chatbots. The model explains 41% of the variance in trust ($R^2 = 0.410$), indicating a moderately strong relationship, and the overall model is statistically significant ($F(1,98) = 68.1, p < .001$).

Table 2 Model Fit Measures

Model	R	R ²	Overall Model Test			
			F	df1	df2	p
1	0.640	0.410	68.1	1	98	<.001

Table 3 shows that the positive and significant coefficient for chatbot experience ($\beta = 0.634$, $t = 8.25$, $p < .001$) suggests that as users' chatbot experience improves, their trust in the chatbot increases correspondingly.

Table 3 Model Coefficients

Predictor	Estimate	SE	t	p
Intercept	0.883	0.1804	4.89	<.001
EX	0.634	0.0768	8.25	<.001

The moderating role of interaction frequency of chatbot between chatbot experience and trust was analysed using the medmod module in Jamovi 2.6.44.

Table 4 Moderation Estimates

	Estimate	SE	Z	p
EX	0.6513	0.0765	8.518	<.001
Interaction frequency	0.0230	0.0543	0.422	0.673

Table 4 Moderation Estimates

		Estimate	SE	Z	p
EX	*	-0.0735	0.0655	-1.122	0.262
Interaction frequency					

The moderation analysis in Table 4 reveals that chatbot experience (EX) has a strong, significant positive effect on trust (Estimate = 0.6513, $p < .001$), indicating that users with better chatbot experiences tend to show higher trust. However, the interaction frequency itself ($p = 0.673$) and its interaction with EX ($p = 0.262$) are not statistically significant, indicating that the frequency of user interaction with the chatbot does not significantly affect the strength of the relationship between experience and trust.

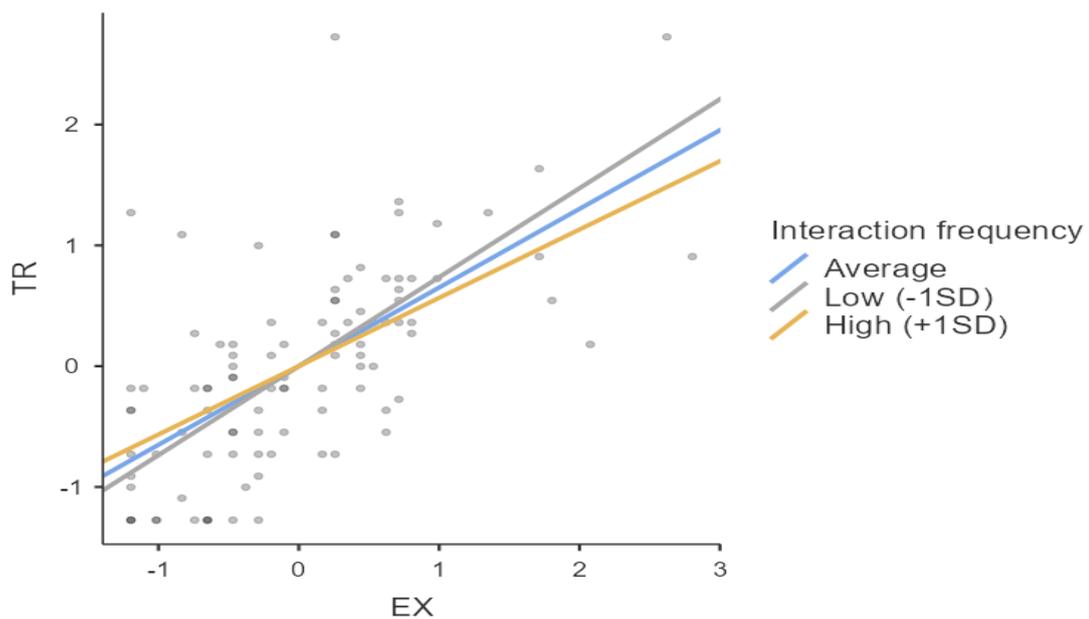


Figure 1 Simple Slope Plot

As shown in the simple slope plot in Figure 1, the relationship between chatbot experience and trust remains positive across all interaction frequency levels—low, average, and high—with slightly steeper slopes at low interaction frequency ($\beta = 0.737$) than at high ($\beta = 0.566$). This suggests that while increased

interaction frequency slightly weakens the positive relationship between experience and trust, the moderation effect is weak and statistically insignificant.

Discussion

The present study examined the influence of chatbot experience on consumer trust in conversational commerce and explored whether interaction frequency moderates this relationship. The findings provide empirical evidence that the quality of chatbot experience plays a crucial role in shaping consumer trust, while interaction frequency does not significantly alter this association.

Consistent with prior research (Araujo, 2018; Chung et al., 2020; Hoyer et al., 2020), the results revealed that a positive chatbot experience significantly enhances consumer trust. The regression model accounted for 41% of the variance in trust ($R^2 = 0.410$), indicating a moderately strong predictive relationship. This finding underscores that elements such as usability, personalisation, responsiveness, and satisfaction collectively strengthen users' confidence in AI-based conversational agents. As suggested by Hoyer et al. (2020), effective chatbot design transforms the user experience from a mere transactional interaction into an emotionally engaging exchange that fosters relational trust. The current results further support the view of Grewal et al. (2020) that technological ease combined with perceived empathy drives positive consumer evaluations and sustained engagement in AI-mediated environments.

The insignificant moderating effect of interaction frequency suggests that chatbot use frequency alone is insufficient to alter the strength of the relationship between experience and trust. Although users who interact more often may become more familiar with the system, this repetition does not necessarily enhance trust if the perceived quality of interaction remains unchanged (Adam et al., 2021; Glikson & Woolley, 2020). The simple slope analysis revealed that the relationship between chatbot experience and trust remains positive across all levels of interaction frequency, but the slope becomes slightly weaker as frequency increases. This trend implies that trust development plateaus with frequent use, potentially due to habituation or the absence of novel, value-adding experiences. As Lee and See (2004) argued, familiarity enhances trust only when system performance consistently meets or exceeds expectations. Hence, qualitative aspects of interaction—such as emotional intelligence, contextual awareness, and responsiveness—may be more critical than mere frequency of contact.

From a theoretical perspective, these findings reaffirm the importance of experience-based trust formation in digital environments (Gefen et al., 2003;

McKnight et al., 2002). The results emphasise that trust in chatbots emerges not from repeated exposure but from cognitively and affectively satisfying interactions that convey competence, benevolence, and reliability. Moreover, the absence of a moderating effect aligns with the view that interaction frequency may only strengthen trust under conditions of continuous learning or adaptive system improvement (Glikson & Woolley, 2020). Therefore, future models of conversational commerce should integrate not only usage metrics but also experiential quality and emotional engagement metrics to predict consumer trust more accurately.

Practically, these results highlight that brands should focus on optimising chatbot design to enhance usability, personalisation, and human-like responsiveness rather than merely increasing consumer exposure to chatbots. Retailers should leverage natural language processing and affective computing techniques to make interactions contextually relevant and emotionally resonant. Ensuring consistency and transparency in chatbot behaviour will likely deepen consumer trust and encourage long-term engagement. Additionally, periodic updates that improve chatbot capabilities and communication tone can help sustain trust levels among frequent users.

In summary, this study contributes to the growing body of literature on conversational commerce by empirically validating the direct positive impact of chatbot experience on trust and demonstrating that interaction frequency does not significantly moderate this relationship. These findings reinforce the argument that the quality, not quantity, of human–AI interaction is the cornerstone of trust in digital service contexts (Araujo, 2018; Glikson & Woolley, 2020; Hoyer et al., 2020).

Conclusion And Implications

This study examined how chatbot experience influences consumer trust in conversational commerce and whether interaction frequency moderates this relationship. The findings clearly demonstrate that chatbot experience exerts a strong and positive influence on consumer trust, reaffirming the importance of designing user-centred conversational interfaces. However, the results also indicate that interaction frequency does not significantly moderate this effect, implying that repeated use alone is insufficient to strengthen trust without qualitative improvements in user experience.

Theoretical Implications

From a theoretical standpoint, this research contributes to the literature on technology-mediated trust and conversational commerce by empirically validating the central role of experiential quality in fostering trust toward AI-driven interfaces.

By demonstrating the non-significance of interaction frequency as a moderator, the study advances the understanding that the development of trust in artificial agents depends more on perceived competence, empathy, and responsiveness than on mere exposure or familiarity. This supports prior theoretical perspectives, such as the Technology Acceptance Model (Gefen et al., 2003) and trust transfer frameworks (McKnight et al., 2002), extending them to AI-mediated conversational contexts. Furthermore, the findings align with Glikson and Woolley's (2020) argument that human trust in AI evolves primarily through consistent, emotionally intelligent interaction quality rather than through repetition of use.

Practical Implications

For practitioners and digital marketers, these findings provide actionable insights for chatbot design and management. Retailers and service providers should prioritise enhancing chatbot usability, personalisation, and responsiveness—features that directly enhance the consumer's trust experience. Incorporating emotionally intelligent communication styles, empathetic language, and adaptive conversational flow can make chatbots appear more human-like and relatable (Araujo, 2018; Hoyer et al., 2020). Additionally, the results suggest that increasing user interaction frequency without improving chatbot performance may not enhance trust and could even lead to user fatigue or scepticism. Therefore, businesses should focus on *quality-driven engagement strategies* such as context-aware dialogue, feedback loops, and periodic system upgrades that reflect learning from previous interactions.

Managerial and Policy Implications

From a managerial perspective, organisations integrating AI chatbots into their service portfolios should adopt a hybrid approach that combines automation efficiency with human oversight. Ensuring ethical transparency, data privacy, and consistent message framing can help reduce uncertainty and build long-term relational trust. Policymakers and regulators, on the other hand, may consider developing standards for AI communication ethics and consumer protection in chatbot-mediated services, especially as conversational commerce becomes increasingly embedded in digital consumer ecosystems.

Limitations and Future Research

Despite its valuable insights, this study has certain limitations. The sample was limited to 100 chatbot users from Kerala, which may affect the generalizability of the results. Future research could employ larger and more diverse samples across regions and sectors. Additionally, longitudinal studies could explore how trust

evolves over repeated interactions and how emotional or anthropomorphic features moderate this trajectory over time. Incorporating other potential moderators—such as perceived risk, social presence, or AI transparency—may further enrich the understanding of consumer trust dynamics in conversational commerce.

Conclusion

In conclusion, the study reinforces that the *quality* of chatbot experience—rather than the *frequency* of interaction—remains the decisive factor in fostering consumer trust. This highlights a crucial insight for both scholars and practitioners. In the age of AI-driven retail, sustainable consumer relationships will depend not on how often consumers talk to machines, but on how *meaningfully* those conversations unfold.

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