



A STUDY ON THE IMPACT OF AI CHATBOTS ON CONSUMER TRUST AND CONFIDENCE IN PURCHASE DECISIONS

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Abstract:

Purpose: The study aims to analyse the impact of AI chatbots on consumer trust and confidence in purchase decisions, focusing on awareness, usage patterns, perception, and satisfaction on shopping and service websites. It also examines whether chatbot interactions influence consumer confidence during online purchases.

Research Methodology: A descriptive research design was used. Primary data was collected via a structured 18-question Google Forms survey from 47 respondents using convenience sampling. Secondary data came from research papers, journals, articles, and online sources. Data was analysed using percentages and descriptive interpretation.

Results: High awareness and usage of chatbots were observed, mainly for customer support and quick query resolution. Chatbots positively influence confidence in routine purchases, but trust remains moderate due to accuracy issues and lack of human touch. Respondents prefer human support for expensive or complex decisions.

Conclusion: AI chatbots enhance online customer experience by improving efficiency, confidence, and satisfaction in routine purchases. However, complete trust is limited, and integration with human support and continuous technological improvements are essential to strengthen consumer trust.

Keywords: *AI Chatbots, Consumer Trust, Online Shopping, Purchase Confidence, Customer Experience*

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Introduction:

The rapid integration of Artificial Intelligence (AI) into retail has transformed the traditional customer-business interface. Current literature highlights that AI chatbots offer unprecedented advantages, including 24/7 availability, instantaneous response times, and the ability to handle massive volumes of queries simultaneously. Research has established that these tools significantly reduce operational costs for businesses while providing consumers with a convenient, low-friction method of information retrieval. Furthermore, studies in the field of The Technology Acceptance Model (TAM) explains how users come to accept and use a new technology. It states that a user's acceptance of technology is mainly

determined by two factors: Perceived Usefulness (the degree to which a person believes that using a system will improve performance) and Perceived Ease of Use (the degree to which a person believes that using the system will be free of effort). These factors influence the user's attitude, intention to use, and actual usage of the technology (Davis, 1989).

Despite the efficiency gains provided by AI, a critical "trust deficit" remains largely unexplored in the transition from information seeking to actual financial commitment. While we understand how consumers interact with chatbots, there is limited empirical evidence regarding how these automated interactions influence the psychological state of "purchase confidence." Existing research often focuses on the

technical accuracy of the AI, yet we lack a clear understanding of the tipping point where a chatbot's lack of human empathy or perceived "robotic" nature begins to erode consumer trust. Specifically, it remains unclear whether a positive chatbot experience can sufficiently compensate for the inherent scepticism consumers feel when a human agent is absent during high-value transactions.

Consequently, there is an urgent need to investigate the direct correlation between chatbot performance attributes and the specific dimensions of consumer trust. This study addresses this gap by conducting a quantitative analysis of consumer perceptions and their subsequent purchase behaviours. By surveying a diverse demographic of online shoppers, this research aims to map how trust is built or broken within a digital conversation. The goal is to provide actionable insights for developers and marketers on how to design AI interfaces that do not just provide answers, but also provide the psychological security necessary for consumers to finalize their purchase decisions.

Objective of the Study:

1. To understand how familiar consumers are with AI chatbots and how often they use them while shopping online.
2. To explore whether AI chatbots help consumers feel more confident about trusting online purchase information.
3. To study how interactions with AI chatbots influence consumers' confidence in making purchase decisions.
4. To identify the reasons why consumers may or may not rely on AI chatbots, especially for expensive purchases.
5. To understand overall consumer feelings and satisfaction toward the use of AI chatbots in purchase decisions.

Hypotheses :

- H1: Perceived accuracy of chatbot information has a significant positive impact on consumer trust.
- H2: Higher response speed of AI chatbots leads to increased consumer confidence in the purchase process.
- H3: Anthropomorphism (human-like traits) in chatbots significantly enhances the emotional trust of shoppers.
- H4: Perceived empathy in chatbot interactions reduces consumer hesitation during the final checkout.
- H5: Data privacy transparency by the chatbot significantly increases a user's willingness to share purchase info.
- H6: The impact of chatbots on purchase confidence is higher for low-involvement products than high-value items.
- H7: Navigational ease provided by the chatbot significantly reduces the consumer's perceived choice overload.

Literature Review:

1. The role of trust in AI chatbots in influencing consumer decision-making in e-commerce. Based on survey data from 94 urban Indian online shoppers and analysed using SEM and logistic regression, the study identifies competence and integrity as key dimensions of trust. The results indicate that personalization and transparency significantly enhance trust, which in turn strongly affects satisfaction and purchase decisions. The study emphasizes ethical and user-centric chatbot design as a critical factor in driving consumer engagement and purchasing behaviour. (Madhavan, S. S., Jayarani, P., Sampathkumari, V., & Dheenadhayalan, V.)
2. The utility and acceptability of AI-enabled chatbots in the online grocery shopping journey. Based on survey data from 375 respondents and analyzed using Structural Equation Modeling (AMOS), the

results indicate that perceived usefulness, usability, and trust significantly influence customer attitudes, which in turn affect purchase decisions. However, trust showed a weaker direct influence on attitudes compared to other factors. The study also reveals consumer concerns regarding chatbot accuracy and security, despite their preference for using chatbots for informational support. **(Jyoti Rana, Ruchi Jain and Vibha Nehra, 2024)**

3. The role of AI chatbot marketing in enhancing customer satisfaction and loyalty in online shopping in Saudi Arabia. Using survey data from 271 online shoppers and analyzed through Structural Equation Modeling (SEM), the findings reveal that chatbot usability and responsiveness significantly improve customer satisfaction. Customer satisfaction was found to mediate the relationship between AI chatbot marketing and customer loyalty. The study highlights AI chatbots as an effective tool for improving digital shopping experiences and fostering long-term customer loyalty. **(Alsadoun, A. A., & Alnasser, A. N, 2025)**
4. The impact of AI chatbots on online purchasing decisions by integrating the Technology Acceptance Model (TAM) and the Theory of Planned Behavior (TPB). Based on data from 104 online shoppers in Tehran and analyzed using SEM (SmartPLS), the results indicate that attitudes and subjective norms significantly influence brand trust and brand love, leading to purchase decisions. However, perceived usefulness and ease of use did not significantly moderate trust formation. The study emphasizes the importance of trust and emotional attachment, suggesting improved chatbot design to enhance consumer acceptance. **(Tayebeh Nikraftar, Abolghasem Arabiun, vajihe saraj, 2025)**
5. The influence of AI chatbots on customer trust and dependability on e-commerce platforms in

Indonesia. Using survey data from 209 respondents and quantitative analysis, the findings reveal that chatbot expertise and responsiveness significantly enhance customer trust and reliance. Humanlike features improve interaction quality, while brand reputation does not directly influence chatbot trust. The study emphasizes efficiency and functional performance as key drivers of trust in AI-enabled chatbots. **(Y. Christopher, A. M. Sundjaja and Mulvono, 2024)**

6. The impact of AI-enabled chatbot interfaces on consumers' online buying behavior in the Delhi NCR region. Using primary data from 200 respondents and analyzed through correlation and regression techniques, the research finds that chatbots positively influence pre-purchase, purchase, and post-purchase stages. AI chatbots enhance the online shopping experience by providing a human-like interface and informed decision support. The study highlights chatbots as an effective digital marketing tool for strengthening consumer engagement. **(Manika Jain, Jhanvi Khurana, 2022)**

Research Methodology:

The present study adopts a descriptive research design to examine the awareness, usage, perception, and satisfaction of users towards AI chatbots used on shopping and service websites. The research is based on both primary and secondary sources of data to ensure a comprehensive and reliable analysis. Primary data for the study was collected using a structured questionnaire designed through Google Forms. The questionnaire consisted of 18 well-structured questions covering demographic details, awareness level, usage pattern, trust, satisfaction, and overall perception of AI chatbots. The survey was circulated online, and responses were collected from 47 respondents, forming the sample size of the study. Convenience sampling technique was used, as it allowed easy access to



respondents who actively engage in online shopping and digital platforms.

Secondary data was collected to support and strengthen the primary findings of the study. Various research papers, academic journals, articles, websites, and published studies related to artificial intelligence, chatbots, and online consumer behavior were referred to. The use of secondary data helped in understanding theoretical concepts, previous research findings, and

Data Analysis & Findings:

The study included 47 respondents, with 26 females (55.3%) and 21 males (44.7%). Most respondents were aged 18–25 years (72.3%), followed by 26–35 years (21.3%). Students (59.6%) formed the largest occupational group, indicating strong participation from young, digitally active users.

current trends related to AI chatbot adoption in e-commerce and service industries.

The scope of the study is limited to a small sample size and a specific time period; hence, the findings may not be universally applicable. However, the methodology adopted ensures that the results obtained are relevant, reliable, and useful for understanding the role of AI chatbots in enhancing online customer experience.

Q.No.	Survey Question	Data from Responses	Interpretation
1	Are you aware of AI chatbots used on shopping or service websites?	Yes: 39 (83%) No: 2 (4.3%) Not sure: 6 (12.8%) Heard about it only: 0%	The findings indicate that most respondents are aware of AI chatbots used on shopping and service websites, showing high familiarity with the technology.
2	Have you ever interacted with an AI chatbot while shopping online?	Yes, many times: 15 (31.9%) Yes, once or twice: 18 (38.3%) Rarely: 12 (25.5%) Never: 2 (43%)	The majority of respondents have interacted with AI chatbots during online shopping, indicating regular usage and exposure.
3	Where have you mostly seen AI chatbots?	E-commerce website: 19 (40.4%) Mobile apps: 20 (42.6%) Banking or service platform: 8 (17%) All the above: 15 (31.9%)	AI chatbots are commonly noticed on mobile applications and e-commerce websites, reflecting their wide digital presence.
4	What do you mainly use AI chatbots for?	Product information: 22 (46.8%) Order tracking: 7 (14.9%) Complaint support: 13 (27.7%) All the above: 16 (34%)	Respondents mainly use AI chatbots for obtaining product information, complaint support, and order-related assistance.
5	Do AI chatbots provide quick responses to your queries?	Always: 12 (25.5%) Most of the times: 27 (57.4%) Sometimes: 8 (17%) Always: 12 (25.5%)	Most respondents feel that AI chatbots provide quick responses to their queries, enhancing convenience.

6	How accurate do you find the information given by AI chatbots?	Very accurate: 6 (12.8%) Mostly accurate: 25 (53.52%) Somewhat accurate: 16 (34%) Not accurate: 0%	The information provided by AI chatbots is generally perceived as accurate and reliable for routine queries.
7	Do AI chatbots help you understand products better?	Agree: 30 (63.8%) Neutral: 17 (36.2%) Strongly agree: 0% Disagree: 0%	Respondents agree that AI chatbots help them understand products better during the online buying process.
8	Do you trust the information provided by AI chatbots?	Yes: 18 (38.3%) No: 1 (2.1%) Sometimes: 28 (59.6%)	Trust in chatbot information exists, but respondents rely on it cautiously rather than completely.
9	Does using an AI chatbot increase your confidence while purchasing?	Strongly agree: 2 (4.3%) Agree: 16 (34%) Neutral: 28 (59.6%) Disagree: 1 (2.1%)	AI chatbot interactions help improve consumer confidence to some extent, though not for all respondents.
10	Would you rely on an AI chatbot before making an expensive purchase?	Yes: 8 (17%) No: 19 (40.4%) Maybe: 20 (42.6%)	Respondents show hesitation in relying on AI chatbots for expensive or high-risk purchase decisions.
11	How satisfied are you with AI chatbot services?	Average rating (3.45)	Overall satisfaction with AI chatbot services is moderate, indicating scope for improvement.
12	What is the main limitation of AI chatbots?	Lack of human touch: 27 (57.4%) Limited answers: 28 (59.6%) Technical issues: 11 (23.4%) No major limitation: 4 (8.5%)	The lack of human touch and limited response capability are perceived as major limitations of AI chatbots.
13	Do you prefer AI chatbots over human customer support?	Yes: 6 (12.8%) No: 16 (34%) Sometimes: 25(53.2%)	Respondents show mixed preference between AI chatbots and human customer support.
14	Will better chatbot technology increase your trust in online purchases?	Strongly disagree: 0% Disagree: 4(8.5%) Neutral: 24(51.1%) Agree: 16(34%) Strongly agree: 3(6.4%)	Many respondents believe that improvements in chatbot technology can enhance trust in online purchases.
15	Would you recommend websites with good AI chatbots to others?	Yes: 24(51.1%) No: 2(4.3%) Sometimes: 21(44.7%)	Respondents are generally willing to recommend websites that provide effective AI chatbot services.

Conclusion:

The study concludes that AI chatbots have a meaningful impact on consumer trust and confidence in online purchase decisions, particularly for routine and low-involvement purchases. The findings reveal high awareness and frequent usage of AI chatbots, especially among young and digitally active consumers. Chatbots are valued for their quick responses, ease of access, and ability to provide basic product and service-related information, which enhances overall shopping convenience and satisfaction.

However, the study also finds that consumer trust in AI chatbots is moderate rather than complete. While respondents acknowledge their usefulness, concerns related to lack of human touch, limited responses, and accuracy issues reduce full reliance on chatbots. This hesitation is more evident in the case of expensive or complex purchases, where human customer support is still preferred.

Overall, AI chatbots serve as an effective support tool rather than a replacement for human interaction. The study highlights the need for continuous technological improvement and better integration of AI chatbots with human assistance to strengthen consumer trust, confidence, and long-term adoption in online shopping environments.

Practical Implication:

According to the study, AI chatbots can boost customer confidence and make online shopping more enjoyable, especially for regular transactions. Chatbots can be used by businesses to reduce response times and operating expenses by offering prompt customer service, product information, and query resolution. However, the study also reveals that people still have a reasonable level of trust in chatbots, particularly when making expensive or complicated purchases. This suggests that human engagement is still necessary in addition to AI systems. Practically speaking,

businesses should concentrate on enhancing chatbot accuracy, personalization, and integration with human help in order to boost customer happiness, foster more consumer trust, and promote broader adoption of AI-driven customer care technologies.

Limitation & Future Research Avenues:

I discovered that while AI chatbots increase productivity and customer confidence when making regular online purchases, they have certain drawbacks. They can give inconsistent answers, and the absence of a human touch makes it impossible to fully trust them, particularly when making costly or complicated purchases. This important limitation was highlighted by respondents' low reliance on chatbots for high-value judgments. Future research can look into how AI chatbots can be integrated with human support to build trust, how effective they are in various industries, and how sophisticated AI features like natural language understanding and personalization can boost customer satisfaction and adoption rates.

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SURVEY FORM LINK

1. <https://forms.gle/4cyMBh2qYXj5ViG79>

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