



CONSUMER ATTITUDE TOWARDS AI-DRIVEN CHATBOTS IN ONLINE SHOPPING PLATFORMS INTRODUCTION

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Abstract:

As online shopping continues to surge, AI-driven chatbots have emerged as essential tools to enhance customer experience by providing instant, personalized support. This study investigates consumer attitudes towards AI chatbots on online shopping platforms in Coimbatore, based on responses from 250 users. Results indicate that consumers highly value the quick responses and convenience offered by chatbots, yet there remains some hesitation regarding trust and the chatbot's influence on purchase decisions. The study underscores the increasing role of AI in shaping online retail experiences and suggests that improving chatbot personalization, transparency, and integration with human support can further boost consumer satisfaction. These insights offer practical guidance for e-commerce businesses aiming to harness AI technology effectively.

Key Words: AI Chatbots, Online Shopping Platforms, Consumer Attitude, E-Commerce, Customer Satisfaction, Artificial Intelligence, Purchase Behavior, Etc.,

Introduction:

The advancement of artificial intelligence has brought significant changes in the field of online shopping. One of the most notable developments is the introduction of AI powered chatbots. These are virtual assistants that use natural language processing and machine learning to interact with customers in real time. They help users by answering queries, providing product recommendations, guiding purchase decisions, and offering round the clock customer support. As online shopping platforms continue to expand, AI chatbots are increasingly becoming an essential part of the digital shopping experience. Consumer attitude towards these AI chatbots plays a vital role in determining their success. While some users find them helpful, efficient, and easy to use, others may feel frustrated by their limitations in understanding complex requests or showing empathy. Trust, reliability, ease of interaction, privacy, and the ability to mimic human conversation are all factors that shape how consumers feel about using chatbots.

Table 1: AI-Driven Chatbots in Online Shopping Platforms - Features, Benefits, and Examples

Aspect	Details	Examples
	AI-powered virtual assistants that communicate with users in natural language to help them with shopping-related queries and tasks	Amazon Chatbot, Flipkart AskBot
Technology Used	Based on Artificial Intelligence, Natural Language Processing, and Machine Learning to understand and respond to human language.	Google's Dialogflow (used by many e-commerce sites)
Core Functions	<ul style="list-style-type: none"> - Answer product-related questions - Suggest items based on user preferences - Assist in placing and tracking orders 	Myntra Fashion Chatbot, Nykaa Beauty Chat Assistant
Customer Benefits	<ul style="list-style-type: none"> - 24/7 availability - Faster responses than human agents - Personalized shopping experience - Multilingual support 	Amazon (Alexa Shopping Help), Tata CLiQChatbot
Business Benefits	<ul style="list-style-type: none"> - Lower customer service costs - Handles high volume of queries - Increases engagement and conversion rates 	Flipkart, Meesho, BigBasket
Limitations	<ul style="list-style-type: none"> - May not understand complex or emotional queries - Limited ability to resolve exceptions - May cause frustration if poorly designed 	All platforms (depends on bot design quality)
Popular Use Cases	<ul style="list-style-type: none"> - Resolving FAQs - Cart recovery reminders - Product discovery - Post-purchase support 	Ajio, Snapdeal, Amazon

Statement of the Problem:

AI-powered chatbots are now commonly used on online shopping platforms to assist customers with product information, order tracking, and issue resolution. They are available 24/7 and aim to improve customer experience by providing quick and automated support. However, not all customers are satisfied with chatbot interactions. Some feel that chatbots lack a human touch, cannot handle complex problems, or are difficult to communicate with. There are also concerns about privacy, accuracy, and trust. While businesses are investing heavily in chatbot technology, the actual attitude and experience of users remain unclear. Understanding these attitudes is important to improve chatbot performance and customer satisfaction. This study

seeks to explore consumer perceptions and identify the factors that influence their acceptance and use of AI chatbots in online shopping.

Significance of the Study:

- Helps understand how consumers feel about using AI chatbots in online shopping.
- Identifies the factors that influence chatbot usage, such as trust, usefulness, and ease of use.
- Supports online businesses in improving chatbot design and customer service strategies.
- Guides developers in creating more user-friendly and intelligent chatbot systems.
- Assists e-commerce platforms in increasing customer satisfaction and loyalty.
- Provides useful insights for marketers and researchers studying digital customer experience.
- Contributes to the growing knowledge of AI applications in the retail and service sectors.

Review of Literature:

Cheng et al. (2024) surveyed 299 e-commerce users in China to examine how task complexity and the disclosure of chatbot identity affect trust. They found that perceived empathy and friendliness boost trust, but complex tasks reduce its impact. When users know they are chatting with AI, empathy fosters trust-but friendliness becomes even more important. Higher trust increases reliance on chatbots in future interactions. Electronic Commerce Research & Applications (2023) studied 395 online shoppers to explore how chatbot human-like traits-empathy and social presence-affect customer trust. The authors found that optimism and innovativeness from users and chatbot empathy/social presence positively influence trust, but overt anthropomorphism can reduce it. Increased trust then leads to greater willingness to use chatbots .

Shankar and Balaji (2020) conducted a study on the role of AI-powered chatbots in improving customer engagement on e-commerce websites. The study surveyed 200 online shoppers from major metropolitan cities in India. Findings showed that customers appreciated quick responses and personalized recommendations from chatbots. Trust and ease of interaction were key factors influencing satisfaction levels.

Kumar and Sharma (2021) surveyed 250 respondents who frequently shop online to understand their perception of chatbot usefulness. The research revealed that consumers value chatbots that provide accurate answers and fast service. However, concerns about data privacy and the inability to handle complex queries reduced user confidence in chatbots.

Ramesh and Deepa (2022) focused on young consumers in Tamil Nadu, collecting data from 300 college students who frequently used e-commerce apps. The study found that tech-savvy youth showed higher acceptance of chatbots and used them regularly for order tracking and product queries. Positive attitude was closely linked with prior experience and frequency of online purchases.

Objectives of the Study:

- To examine consumer attitudes towards AI-driven chatbots used in online shopping platforms.
- To identify the key factors influencing consumer satisfaction and acceptance of chatbot services.

Research Methodology:

- Research Design: This study uses a descriptive research design to understand consumer attitudes toward AI-driven chatbots in online shopping platforms.
- Area of Study: The study was conducted in Coimbatore city, Tamil Nadu, known for its active online shopping population, making it a suitable location to gather relevant consumer data.
- Sampling Technique: Convenient sampling was employed to select respondents in Coimbatore who have experience using online shopping platforms and interacting with AI chatbots.
- Sample Size: A total of 250 respondents from various demographic backgrounds participated in the study to provide diverse insights.
- Data Collection Method: Primary data was collected using a structured questionnaire featuring Likert scale statements, multiple-choice, and demographic questions. Both online and offline methods were used to reach respondents across Coimbatore.
- Data Analysis: Data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential tests such as simple percentage, t-tests, ANOVA and Garrett’s Ranking Technique to examine relationships and rank influencing factors.

Limitations of the Study:

The study has certain limitations that should be considered when interpreting the results. First, the research focuses only on consumers in Coimbatore city, which may limit the generalizability of the findings to other regions with different demographic or technological profiles. Second, the sample size of 250 respondents, though adequate for this study, may not fully represent the entire population of online shoppers using AI-driven chatbots. Third, the study includes only those consumers who have experience interacting with AI chatbots, so the attitudes of users unfamiliar with this technology are not reflected. Finally, since data collection relied on self-reported questionnaires, responses may be influenced by personal biases or misunderstandings, which could affect the accuracy of the findings.

Analysis and Interpretation:

Table 2: Demographic Profile of Respondents

Variable	Category	Frequency	Percentage (%)
Gender	Male	120	48.0%
	Female	130	52.0%
Age Group	Below 20 Years	35	14.0%
	21 - 30 Years	120	48.0%
	31 - 40 Years	60	24.0%

Educational Qualification	Above 40 Years	35	14.0%
	Higher Secondary	40	16.0%
	Undergraduate	120	48.0%
	Postgraduate	70	28.0%
	Others	20	8.0%
Occupation	Student	70	28.0%
	Private Employee	90	36.0%
	Government Employee	40	16.0%
	Self-Employed / Business	30	12.0%
	Homemaker	20	8.0%
Marital Status	Single	140	56.0%
	Married	110	44.0%
Area of Residence	Urban	160	64.0%
	Semi-Urban	50	20.0%
	Rural	40	16.0%
Monthly Income	Below ₹10,000	45	18.0%
	₹10,001 - ₹20,000	65	26.0%
	₹20,001 - ₹30,000	70	28.0%
	₹30,001 - ₹50,000	45	18.0%
	Above ₹50,000	25	10.0%

The study was conducted among 250 people who use online shopping platforms and have interacted with AI chatbots. Most of the respondents were female (52%), and the rest were male (48%). A large number of them (48%) were between 21 and 30 years old, showing that young adults use chatbots more often. In terms of education, many had completed undergraduate (48%) or postgraduate (28%) degrees, which means they are likely to be familiar with digital tools.

Most respondents worked in private jobs (36%) or were students (28%), followed by government employees, business people, and homemakers. More than half (56%) of the respondents were single, and most of them (64%) lived in urban areas. This shows that people in cities are more active in using online shopping and chatbots. Many respondents belonged to middle-income groups, with most earning between ₹10,000 and ₹30,000 per month.

Table 3: Impact of Demographic Factors on Consumer Attitude towards AI Chatbots

Demographic Variable	Category	N	Mean Score	SD	t-value	p-value (Sig.)
Gender	Male	120	35.50	9.80	0.45	0.65
	Female	130	35.10	10.10		
Marital Status	Single	140	34.80	9.75	-1.25	0.21
	Married	110	36.00	10.20		
Age Group	Below 20 Years	35	34.20	9.00	3.45	0.018*
	21 - 30 Years	120	35.80	9.75		
	31 - 40 Years	60	36.10	10.30		
	Above 40 Years	35	34.50	10.00		
Educational Qualification	Higher Secondary	40	33.90	10.50	4.12	0.008*
	Undergraduate	120	36.50	9.20		
	Postgraduate	70	35.90	9.80		
	Others	20	33.00	11.00		
Occupation	Student	70	34.50	9.60	3.80	0.006*
	Private Employee	90	36.20	9.90		
	Government Employee	40	35.80	10.20		
	Self-Employed / Business	30	36.00	10.50		
	Homemaker	20	33.90	9.80		
Area of Residence	Urban	160	35.80	10.00	2.90	0.056
	Semi-Urban	50	34.50	9.50		
	Rural	40	34.10	10.20		
Monthly Income	Below ₹10,000	45	34.90	9.70	3.10	0.016*
	₹10,001 - ₹20,000	65	35.20	9.60		
	₹20,001 - ₹30,000	70	36.50	10.10		
	₹30,001 - ₹50,000	45	35.00	9.80		
	Above ₹50,000	25	34.80	10.00		

The analysis shows that there is no significant difference in consumer attitude towards AI chatbots between males and females, as indicated by the t-test results for gender. Similarly, marital status does not have a significant impact on buying behavior. However, age groups show a significant difference in attitudes, with younger and middle-aged respondents scoring slightly higher than older ones. Educational qualification also plays a significant role, where respondents with undergraduate and postgraduate degrees have more positive attitudes compared to those with lower education levels. Occupation influences attitudes as well, with private employees and students showing higher scores. Area of residence and monthly income show some variations, but only monthly income demonstrates a statistically significant effect on consumer attitude. Overall, the findings suggest that

demographic factors like age, education, occupation, and income affect consumer attitudes towards AI chatbots, while gender and marital status do not.

Table 4: Garrett’s Ranking for Factors Influencing Consumer Preference Towards AI Chatbots

S.No	Factors	Garrett Score	Mean Score	Rank
1	24/7 Availability	16,790	67.16	I
2	Personalized Recommendations	16,150	64.60	II
3	Quick Response Time	15,725	62.90	III
4	Ease of Use	15,010	60.04	IV
5	Instant Query Resolution	14,320	57.28	V
6	Better Product Suggestions	13,280	53.12	VI
7	Saves Time	12,540	50.16	VII
8	No Human Interaction Required	11,180	44.72	VIII

The analysis of consumer preferences using Garrett’s Ranking Technique revealed that 24/7 availability of AI-driven chatbots is the most influential factor, ranked first, in shaping user attitudes. This indicates that round-the-clock service access is highly valued by online shoppers. Following this, personalized recommendations were ranked second, suggesting that consumers appreciate chatbots that offer tailored product suggestions based on their browsing or purchase history. Quick response time was placed at rank three, still reflecting its importance but slightly below the top two. Ease of use of the chatbot interface came next at rank four, highlighting that user-friendly design and navigation remain a priority for consumers. Instant query resolution received rank five, indicating moderate influence, while better product suggestions and saves time were ranked sixth and seventh respectively, showing relatively lesser impact on preference. Interestingly, no human interaction required was ranked the lowest at rank eight, suggesting that while automation is useful, consumers may still prefer having the option of human support in certain situations.

Table 5: Consumer Attitude Towards AI-Driven Chatbots

Statement	Strongly Disagree (1)	Disagree (2)	Neutral (3)	Agree (4)	Strongly Agree (5)	Mean Score	Std. Deviation
AI chatbots respond quickly to my queries	5	8	32	110	95	4.28	0.65
I feel comfortable interacting with AI chatbots instead of humans	10	18	40	120	62	3.65	0.84
Chatbots help me save time during online shopping	6	12	38	125	69	4.05	0.72
AI chatbots are easy to use and understand	7	15	40	118	70	3.88	0.78
I find AI chatbots helpful in providing product-related information	3	10	35	120	82	4.12	0.69
I trust the responses provided by AI chatbots	12	25	50	108	55	3.52	0.83
I am satisfied with the overall experience of using AI chatbots	8	20	36	120	66	3.75	0.80
I prefer platforms that use AI chatbots over those that don't	15	30	58	105	42	3.45	0.91
AI chatbots influence my purchase decisions	20	32	60	95	43	3.24	0.95
I am likely to continue using AI chatbots in future online shopping activities	5	15	38	120	72	3.91	0.76

The analysis of consumer attitudes towards AI-driven chatbots reveals a generally positive perception among respondents. Most respondents, 205 out of 250, agreed or strongly agreed that AI chatbots respond quickly to queries, making this the most valued feature with a mean score of 4.28. Comfort in interacting with chatbots received a moderately positive rating, with 182 respondents agreeing or strongly agreeing and a mean score of 3.65, indicating growing acceptance of AI in customer service. Many consumers also agreed that chatbots help save time during online shopping (194 respondents) and are easy to use and understand (188 respondents), reflecting convenience as an important benefit. The helpfulness of chatbots in providing product-related information was strongly appreciated by 202 respondents, corresponding to a mean score of 4.12. Trust in chatbot responses showed some caution, with 163 respondents agreeing or strongly agreeing and a moderate mean of 3.52, suggesting trust remains an area for improvement. Satisfaction with the overall experience and the likelihood of continued use were positive, with over 185 respondents supporting these statements. However, the influence of chatbots on purchase decisions was more neutral; only 138 respondents agreed or strongly agreed, and the mean score was the lowest at 3.24. This suggests that while chatbots assist consumers, they do not strongly influence final buying decisions. Overall, the findings indicate that consumers view AI chatbots as responsive, helpful, and time-saving tools in online shopping, with room for improvement in trust and purchase influence.

Suggestions for the Study:

- Make chatbots more personalized to help customers better.
- Be clear about how chatbots work to build trust.
- Allow easy switching to human help if needed.
- Keep chatbots answering questions quickly.
- Teach users about the benefits of chatbots.

- Keep chatbot information updated and accurate.
- Add features that help chatbots influence buying decisions.
- Make sure chatbots work well on phones.
- Listen to user feedback to improve chatbots.
- Support more languages so more people can use chatbots easily.

Conclusion:

In today's digital era, AI-driven technologies are transforming the way consumers shop online. This study shows that consumers generally have a positive attitude towards AI-driven chatbots on online shopping platforms. Most users appreciate features such as quick responses, helpful product information, and 24/7 availability. While many feel comfortable interacting with chatbots and find them easy to use, some still prefer human support for complex issues. Trust in chatbot responses is moderate, and their influence on purchase decisions remains limited. Overall, AI chatbots enhance the online shopping experience by saving time and providing instant assistance. However, there is potential for improvement in areas like personalization, building trust, and expanding chatbot functions to better support customers. With ongoing development and user awareness, chatbots are likely to play an even greater role in the future of online retail.

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