

How AI Chatbots Are Transforming Consumer Engagement in India: A Secondary Data-Based Analysis of Marketing Trends, Applications, Challenges, and Benefits

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Abstract

The integration of AI chatbots into customer engagement strategies has significantly reshaped how Indian businesses interact with consumers across industries such as e-commerce, banking, education, healthcare, and travel. This paper presents a secondary data-based analysis of how AI-powered chatbots are transforming consumer engagement in India by reviewing academic literature, industry white papers, government reports, and real-world case studies. The study explores key marketing applications of chatbots, including lead generation, personalized recommendations, customer service automation, feedback collection, and post-purchase support. The paper highlights case examples from Indian companies such as HDFC Bank (EVA), Apollo, Flipkart, and BYJu, MyGov App demonstrating the impact of chatbot integration on improving customer response times, increasing conversion rates, and reducing operational costs. Through a secondary data analysis approach, the study identifies key benefits such as improved personalization, real-time engagement, scalability, and data-driven marketing insights. It also addresses the challenges faced by Indian firms in chatbot adoption, including technological limitations, user trust, data privacy, and the need for culturally relevant conversational design. By synthesizing current trends and practices, the paper provides actionable insights for marketers, digital strategists, and customer experience professionals. The findings suggest that AI chatbots are not just service tools but strategic assets that can elevate the overall consumer experience when designed and deployed effectively. This research contributes to the evolving discourse on AI in marketing and offers a foundation for future empirical research on chatbot adoption and effectiveness in the Indian context.

Keywords: AI Chatbots, e-Commerce, Banking, Education, Healthcare.

Introduction

Artificial Intelligence (AI) refers to the simulation of human intelligence by machines, especially computer systems, that are capable of learning, reasoning, problem-solving, and understanding language (Kaplan & Haenlein, 2019). AI technologies include machine learning, natural language processing (NLP), robotics, and computer vision, which are now increasingly being applied across domains including healthcare, finance, manufacturing, and notably, marketing. One of the most prominent applications of AI in marketing is the AI chatbot.

An AI chatbot is a software application that uses AI techniques—particularly NLP and machine learning—to conduct real-time conversations with users, either textually or verbally, simulating human-like interaction. These chatbots are designed not only to answer queries but also to understand intent, provide recommendations, and support transactions (Huang & Rust, 2021). Unlike traditional rule-based bots, AI-powered chatbots can learn from previous interactions and adapt to new inputs over time, making them a critical tool in delivering personalized and scalable customer service experiences.

In marketing, AI chatbots serve as always-on digital touchpoints that support customer acquisition, engagement, and retention. They enable brands to interact with customers across channels—websites, apps, messaging platforms like WhatsApp or Facebook Messenger—providing consistent and personalized assistance (NASSCOM, 2024). From addressing customer inquiries to guiding purchases and upselling products, chatbots are increasingly being recognized as pivotal to customer journey management. The integration of chatbots into customer service operations has reduced wait times, improved response quality, and enhanced overall satisfaction, thereby contributing to stronger customer relationships and brand loyalty (Hoyer et al., 2020).

Globally, the chatbot market has experienced exponential growth. According to Statista (2024), the global chatbot market was valued at USD 5.4 billion in 2023 and is projected to reach over USD 15 billion by 2030. This growth is attributed to increased digitalization, cost pressures, and rising expectations for 24/7 customer support.

In India, the adoption of chatbots is accelerating rapidly across industries including banking, e-commerce, healthcare, education, and public services. The Indian chatbot market was valued at approximately USD 243 million in 2024 and is expected to reach USD 1.46 billion by 2033, growing at a CAGR of over 20% (IMARC Group, 2025). Organizations such as HDFC Bank (with EVA), ICICI Bank (with iPal), and Flipkart have successfully deployed chatbots that handle millions of consumer interactions monthly, reducing dependency on human agents and improving service quality (Patwa, 2025).

This uptake is also driven by the increasing affordability and accessibility of AI solutions and India's expanding digital user base—projected to exceed 1 billion internet users by 2030 (IAMAI, 2024). Additionally, the demand for multilingual and culturally relevant chatbot experiences has spurred the development of region-specific conversational AI platforms tailored to Indian users.

Consumer engagement, defined as the emotional and cognitive connection between a customer and a brand, has become a critical determinant of long-term business success. In the digital economy, brands are expected to deliver hyper-personalized, responsive, and consistent experiences across digital platforms. AI chatbots enable such engagement by allowing real-time conversations at scale, offering product recommendations, resolving grievances, and even initiating proactive communication (Huang & Rust, 2021).

In India, businesses that have adopted AI chatbots have reported significant improvements in customer interaction metrics. For instance, a report by Biz2X (2025) showed that Indian banks using chatbots experienced up to 40% increases in user engagement and a 25% reduction in customer churn. Furthermore, chatbots help companies collect valuable behavioral data, which can be used to refine targeting strategies and personalize future campaigns.

Despite these benefits, challenges persist. Many Indian users still report dissatisfaction with bots that fail to understand regional nuances or cannot resolve complex queries (Kadence, 2024). These gaps highlight the importance of context-aware chatbot design and the need for continual refinement of algorithms based on localized user behavior.

While chatbot deployment is a global trend, India's unique characteristics—including its linguistic diversity, digital literacy variations, and socio-economic heterogeneity—necessitate focused study. Most current academic research on chatbots is either technology-centric or Western in context, leaving a gap in understanding user preferences and engagement outcomes in the Indian market.

India offers a complex ecosystem where consumers interact in over 20 languages, and buying behavior is shaped by regional, cultural, and generational differences. This makes the Indian market both a challenge and an opportunity for chatbot developers and marketers. A nuanced understanding of how users perceive and engage with AI chatbots in India can help organizations design more inclusive and effective conversational experiences.

Given the vast amount of publicly available industry data, company case studies, and academic literature, a secondary data-based analysis offers a robust and resource-efficient method to explore the transformative role of AI chatbots in consumer engagement within India. This approach allows cross-sector comparisons and aggregation of trends that may not be visible in individual case studies.

This study will analyze existing literature, market reports, and real-world chatbot implementations to (a) examine marketing applications of AI chatbots in India, (b) assess their benefits and limitations in driving consumer engagement, and (c) identify future trends and research gaps. By synthesizing these insights, the study aims to contribute meaningfully to both academic discourse and industry practices.

Review of Literature

AI chatbots are software agents that leverage artificial intelligence (AI) and natural language processing (NLP) to simulate human conversation. Faluyi and Akinwonmi (2024) note that chatbots *“have transformed the way businesses and institutions interact with their customers due to [their] enhanced user engagement, 24/7 availability and data-driven insight in decision making”* (Oluwadamilola and Emmanuel, 2024). In practice, chatbots use NLP and machine learning to interpret user inputs and generate responses. For example, Haleem et al. (2022) report that NLP-powered chatbots *“can reply to human language, process orders, and provide real-time personalised suggestions”* while handling inquiries (Haleem et al., 2022). In other words, AI chatbots combine language understanding, dialogue management, and knowledge bases to automate customer interactions on websites, messaging apps, or voice platforms. Their ability to provide instant answers around the clock is a key design advantage: chatbots *“are programmed to understand user queries and respond conversationally,”* providing information or transactions at any time. Modern chatbot systems thus integrate components like user-intent analysis, context tracking, and knowledge retrieval, enabling them to handle routine tasks (e.g. FAQs, order processing) efficiently.

Recent advances in AI – especially large language models – have further improved chatbot fluency. Vijayakumar et al. (2024) observe that chatbots deliver *“instantaneous responses, 24/7 availability, and personalized interactions”*, which have driven their widespread adoption across industries. In sum, chatbot design now emphasizes robust NLP, scalability (handling many users at once), and seamless handoff to humans when needed. These technical foundations set the stage for chatbots to be applied in many marketing contexts.

Studies generally find that effective chatbots can boost customer engagement and satisfaction. Soni and Jain (2025) analyze cross-industry data and conclude that *“properly implemented AI chatbots significantly enhance consumer engagement while reducing operational costs”*. In practical terms, chatbots improve metrics like response speed and conversion rates: in some cases customers experience 15–25% higher satisfaction and 60–70% faster responses with AI assistance (Grand View Research, 2024). By personalizing interactions, chatbots make users feel valued. Sinch (2023) reports that chatbots can offer *“tailored offers in the customers’ preferred languages”*, leading to increased brand loyalty and retention – users feel more *“connected and valued”* when bots give personalized recommendations. Bansal et al. (2023) similarly note that chatbots *“save time and make ease for customers’ queries and help various organisations to promote engagement with customers”*

Trust and user psychology also play roles. Kumar et al. (2025) find that chatbot features like conversational agility (e.g. smoothly handling context) can significantly increase user trust and engagement, whereas unmet privacy expectations undermine them. In India, language and cultural factors matter: chatbots that support regional languages and culturally relevant conversations tend to engage broader user segments. Overall, the literature suggests chatbots can positively influence consumer-brand engagement metrics (satisfaction, loyalty, intent) when well-designed (Soni and Jain, 2024). However, engagement gains depend on user acceptance – if a bot misunderstands queries or users distrust AI, engagement may suffer.

Objectives of the Study

The below are objectives for the study:

- To analyze the marketing applications of AI chatbots in India
- To explore the benefits of chatbots in enhancing consumer engagement

- To identify sector-wise use cases of chatbot integration
- To discuss challenges and future opportunities in chatbot-based engagement

Research Methodology

This study adopts a secondary data-based research methodology to explore the transformation of consumer engagement through AI chatbot adoption in India. Secondary data analysis involves the collection and synthesis of existing research studies, market reports, institutional publications, and industry analyses to derive meaningful insights without engaging in primary data collection (Johnston, 2017). The data sources include peer-reviewed journal articles, government and industry reports, consulting firm whitepapers, and publications from credible technology research organizations such as Bain & Company, NASSCOM, IMARC Group, Grand View Research, and 6Wresearch. Academic literature was gathered using digital libraries and databases including Scopus, IEEE, ScienceDirect, and Google Scholar, focusing on recent studies published between 2019 and 2025.

This methodology is suitable for understanding large-scale trends, sectoral use cases, and consumer behavior patterns in response to chatbot adoption without geographical or time-bound limitations. It enables triangulation of findings from various sources and helps identify consistent patterns and discrepancies in how AI chatbots are deployed and perceived across industries in India. By using secondary data, the study provides a cost-effective, time-efficient, and broad-based understanding of the evolving role of AI chatbots in marketing and consumer engagement within the Indian context.

Discussion

• Marketing Applications of Chatbots in India

AI chatbots are increasingly deployed in India as part of marketing and customer service strategies. E-commerce and financial services are early adopters, but chatbots now appear in sectors ranging from retail to healthcare. Industry analysts report that India's chatbot market is growing rapidly: a 2023 6Wresearch report predicts a compound annual growth rate (CAGR) of about 6.7% through 2031. This growth is driven by firms' focus on customer experience and by AI/NLP improvements. 6Wresearch (2023) explains that chatbots "*offer personalized interaction, real-time solutions, and assistance,*" and that advances in AI make them "*smarter and more adaptable,*" thereby increasing adoption in banking, retail, and government services.

On the ground in India, leading companies offer prominent chatbot examples. Telecom and payments firm Paytm uses a chatbot for 24/7 customer support and personalized finance advice (Sinch, 2023). Ride-sharing and delivery services likewise use chatbots for dispatch updates and FAQs. Even small businesses on WhatsApp employ simple chatbots for order-taking. As of 2023, India is noted as "*a leading country for e-commerce chatbot usage, with a high demand for AI bots across various sectors*" (Dilmegani, 2025). For instance, consumers often interact informally with shops and professionals via messaging; building on this, platforms are adding formal "conversational journeys" (chatbots on messaging apps) to facilitate transactions. A recent Bain & Company report finds that over 50% of surveyed Indian consumers *strongly prefer* to complete routine tasks (e.g. checking bank statements, paying bills) via chatbot-like conversations (Sheth, 2025). In summary, chatbots in India are used to automate routine inquiries, capture leads, make recommendations, and gather customer data for marketing.

• Benefits for Consumer Engagement

Chatbots offer multiple advantages for consumers and firms. Key benefits include:

- **24/7 Availability and Efficiency:** Chatbots provide round-the-clock service, eliminating "closed" hours. Grand View Research (2024) observes that chatbots "*provide 24/7 availability, reducing response times and improving user satisfaction*". Freed from routine inquiries, human staff can focus on complex issues.
- **Personalization and Loyalty:** By leveraging user data, chatbots can tailor product suggestions and messages. Sinch (2023) notes that personalized offers in regional languages make customers feel "connected and valued," fostering brand loyalty. For example, an Indian e-commerce bot might use a shopper's history to upsell accessories immediately after a purchase.

- **Cost Savings and Scalability:** Deploying chatbots can lower operational costs. Grand View Research highlights chatbots' "*cost-saving potential and scalability*," enabling even small businesses to provide service competitive with larger firms. Automated chatbots handle thousands of queries simultaneously, reducing the need for large call centers.
- **Data Insights and Marketing:** Chatbots collect customer interaction data that can drive marketing. As noted by Vijayakumar *et al.* (2024), AI chatbots enable "*real-time personalization*" and deeper understanding of consumer behavior. Firms use these insights for targeted promotions and improved content strategy.
- **Omnichannel Reach:** Chatbots easily integrate into popular Indian platforms (WhatsApp, Facebook Messenger, in-app chat), meeting customers on their preferred channels. Aimultiple (2025) notes that many Indian chatbot platforms (e.g. Gupshup, Haptik) support multiple messaging apps and languages, expanding engagement reach.

In summary, chatbots streamline customer journeys, enrich personalization, and allow firms to engage consumers more broadly and efficiently. Indian businesses from retail to banking already leverage these benefits; for example, major fintechs use chatbots for customer onboarding and service, leading to measurable improvements in engagement and sales.

- **Sector Wise Usage of AI Chatbots**

In India, chatbot technology has found adoption across a range of sectors due to the growing need for scalable, efficient, and round-the-clock consumer interactions. With over 900 million internet users (IMARC Group, 2025), businesses are integrating AI chatbots to enhance user experiences, automate services, and improve engagement rates.

- **Banking and Finance:** The Indian banking sector has been at the forefront of chatbot adoption. HDFC's EVA and SBI's SIA are prime examples of intelligent chatbots that assist in customer service, including balance inquiries, product suggestions, and grievance resolution. EVA reportedly handled over 5 million queries across more than 20 banking products within the first few months of launch (Patwa, 2025). Chatbots in this domain help reduce call center burden and enhance 24/7 customer support.
- **E-commerce and Retail:** Flipkart's chatbot, "Flippy," and Amazon India's voice-enabled shopping assistant streamline shopping experiences by handling order tracking, return requests, and product searches. These bots support multilingual functionality and are designed for regional language preferences, critical for India's Tier II and Tier III markets (Kadence, 2024).
- **Healthcare:** Startups and hospitals are leveraging chatbots for appointment scheduling, symptom checking, and post-treatment follow-ups. Apollo Hospitals launched an AI-powered bot to provide COVID-19 symptom assessment and triaging services. This reduces administrative burden while offering preventive care (NASSCOM, 2024).
- **Education:** EdTech platforms such as BYJU'S and Vedantu use chatbots for onboarding, curriculum navigation, doubt resolution, and performance tracking. These bots assist in hybrid learning environments and maintain engagement by providing personalized learning pathways.

- **Public Sector and Governance**

The Indian government has also adopted chatbots, such as "MyGov Helpdesk" on WhatsApp, which offers vaccination updates, documents assistance, and public scheme awareness. This reflects how chatbots enhance citizen engagement and streamline service delivery at scale (IMARC Group, 2025).

In summary, sector-wise integration of chatbots in India demonstrates both utility and adaptability. Each sector tailors chatbot design to suit domain-specific needs, contributing to operational efficiency and improved consumer touchpoints.

Challenges and Future Opportunities in the Indian Market

Despite their promise, AI chatbots face several challenges in India's market. Major issues include:

- **Trust and Privacy:** Users may hesitate to share sensitive data with bots. Choudhary *et al.* (2024) identify “*privacy and security issues*” and “*lack of trust*” as key barriers to chatbot adoption in Indian banking. Kumar *et al.* (2025) similarly find that privacy concerns can significantly reduce trust in chatbots. Without clear data protections, customers might abandon chatbot interactions.
- **Language and Cultural Diversity:** India’s multilingual landscape is a challenge. Chatbots must handle dozens of languages and dialects. Choudhary *et al.* highlight the “*need for multilingual support*” as a top barrier. Patil and Patil (2025) likewise stress that AI tools must provide regional language support to engage consumers across Tier-2 and Tier-3 cities. In practice, many chatbots in India currently support only English or a few major languages, limiting reach.
- **Technical Limitations:** Natural language understanding still has limits. Choudhary *et al.* note “*limitations in NLP*” and “*lack of human touch*” as obstacles. Bots can misinterpret slang or complex queries, frustrating users. Soni and Jain (2025) point out that technical glitches and the need for human fallback in complex cases remain challenges.
- **Cost and Integration Complexity:** Although chatbots save money long-term, initial setup and integration can be expensive and complex. 6Wresearch (2023) reports that “*the cost of developing and maintaining chatbots can be high,*” and “*integration can be complex,*” deterring some organizations. For Indian SMEs, these upfront costs and technical know-how gaps can slow adoption.
- **Regulatory and Ethical Concerns:** Emerging regulations like India’s Personal Data Protection Act add compliance burdens. Chatbots must handle user data responsibly. Patil and Patil (2025) caution that ethical and legal issues (e.g. data privacy) are critical challenges for AI marketing. Indian firms must navigate these to avoid reputational risks.
- **User Preferences:** Even tech-savvy Indian users often prefer human help for nuanced problems. Bain & Company (2024) observes that while over half of users welcome chatbot-based “*conversational journeys*” for routine tasks, “*complex or urgent interactions still require human involvement*” and automating them remains costly. Chatbots must therefore clearly hand off to humans when needed, to keep users engaged rather than frustrated.

In sum, overcoming these challenges – by improving language support, building trust, ensuring AI transparency, and balancing automation with human oversight – is crucial for chatbots to fulfill their potential in India. Organizations and policymakers need to collaborate on guidelines, as Choudhary *et al.* (2024) emphasize the importance of AI regulations for Indian chatbots

On the opportunity front, voice-enabled bots in Indian languages are gaining momentum. Companies like Reliance Jio and vernacular AI startups are investing in voice-first solutions that cater to low-literacy users.

Further, hyper-personalized interactions using AI-driven analytics will make chatbots more predictive and less reactive. Integration with sentiment analysis tools can make interactions more human-like and empathetic.

There’s also potential in cross-sector expansion—chatbots in agriculture for real-time crop advisory, or in microfinance for financial literacy and loan management among underserved populations.

Finally, collaboration between academia, industry, and government could foster innovation through open-source NLP models suited for Indian languages, enhancing chatbot accessibility and contextual intelligence.

Conclusion and Further Directions

The integration of AI chatbots in the Indian marketing landscape signifies a transformative shift in how brands communicate, engage, and build relationships with consumers. By synthesizing secondary data across key sectors such as banking, e-commerce, healthcare, education, and governance, this study highlights the multi-dimensional role of chatbots in enhancing consumer engagement. Their ability to offer round-the-clock assistance, reduce human workload, personalize user experiences, and operate across digital touchpoints has made them a vital component of India’s digital transformation.

However, challenges persist—particularly concerning linguistic diversity, data privacy, and user satisfaction—suggesting that chatbot success is not merely technological but also cultural and

contextual. Addressing these challenges requires innovation in NLP, ethical AI design, and broader infrastructural support, especially in underserved and rural segments.

Looking ahead, the future of chatbot-based engagement in India lies in voice-enabled, multilingual, and sentiment-aware systems that can deliver hyper-personalized experiences. Opportunities for chatbot integration in agriculture, public health, microfinance, and government services remain largely untapped and can significantly boost digital inclusion. Furthermore, public-private partnerships, open-source AI models tailored for Indian contexts, and regulatory clarity will be crucial in shaping the next phase of chatbot evolution.

Overall, this secondary data-based analysis reaffirms that AI chatbots are not just technological tools but strategic enablers of consumer engagement in India's rapidly digitizing economy.

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