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Article

# A Qualitative Study on the Adoption of Chatbots for Improving Customer Service in Emerging Markets

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Abstract

This study investigates the adoption of chatbots for improving customer service in emerging markets through a qualitative research approach. As organizations in these regions face unique challenges related to resource constraints, diverse consumer expectations, and rapidly evolving technological landscapes, understanding the factors that influence chatbot adoption is critical. The research explores organizational drivers, technological readiness, consumer perceptions, trust, cultural adaptation, operational challenges, strategic benefits, and learning mechanisms associated with chatbot implementation. Data were collected using semi-structured interviews with managers, IT professionals, and consumers across multiple emerging market contexts. Thematic analysis of the data identified eight key themes that shaped adoption experiences and outcomes. Findings indicate that strategic alignment and leadership vision are central to guiding chatbot initiatives, while robust technological infrastructure and skilled personnel facilitate smoother integration. Consumer acceptance was influenced by factors such as ease of use, personalization, responsiveness, trust, and the availability of human escalation options. Cultural and linguistic adaptations further enhanced engagement and satisfaction, highlighting the importance of context-specific design. Operational challenges were addressed through iterative deployment, feedback mechanisms, and continuous performance monitoring, enabling organizations to refine chatbot functionality over time. The study also revealed that successful adoption delivers tangible strategic benefits, including enhanced customer engagement, faster response times, operational scalability, and improved service consistency. Overall, the research demonstrates that chatbot adoption in emerging markets is a multidimensional process requiring a holistic approach that integrates technology, organizational strategy, cultural sensitivity, and adaptive learning. The findings provide practical guidance for organizations seeking to implement AI-driven customer service solutions, emphasizing that thoughtful, user-centered, and context-aware implementation is essential for achieving meaningful improvements in service quality and customer experience.

**Keywords:** chatbots; customer service; emerging markets; ai adoption; digital transformation; cultural adaptation; user experience

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## 1. Introduction

Chatbots have become an increasingly significant element of modern customer service strategies, especially in emerging markets where firms seek to harmonize operational efficiency with the pressing demands of rapidly expanding consumer bases. Fundamentally, chatbots represent a category of artificial intelligence (AI) technologies capable of processing natural language, simulating conversational interaction, and responding to customer inquiries without direct human intervention (Adamopoulou & Moussiades, 2020; Liu et al., 2021). The integration of chatbots into customer service functions is not merely a technological evolution but also a response to broader institutional forces that influence how emerging economies absorb and operationalize digital innovations (Dangi et al., 2020; UNCTAD, 2020). Qualitative inquiry into this phenomenon reveals the social, cultural, organizational, and behavioral dynamics that shape the adoption process, offering insights beyond what quantitative adoption metrics alone can provide. In emerging markets, adoption is situated

within unique socio-economic contexts marked by varying levels of digital infrastructure, consumer expectations, and business maturity (World Bank, 2022; UNDP, 2021; Emon, 2025). Unlike in developed economies where technological adoption follows more predictable pathways aligned with established digital ecosystems, emerging markets demonstrate a complex mix of opportunity and constraint shaped by institutional voids, resource limitations, and culturally specific patterns of service consumption (Kshetri, 2021; Hussain et al., 2022). Here, chatbot adoption for customer service is not only a technical challenge but also a strategic organizational initiative that reflects firms' orientation toward innovation, customer engagement, and competitive advantage. Qualitative perspectives foreground the lived experiences of stakeholders including managers, developers, customers, and frontline service providers revealing the meanings, motivations, and perceptions that underlie chatbot adoption decisions. For example, businesses in emerging markets often view chatbots as instruments to bridge resource gaps by providing scalable, 24/7 customer support that human agents cannot affordably sustain (Borges et al., 2022; Emon & Chowdhury, 2025). This reflects broader service imperatives: delivering consistent service quality, reducing response times, and addressing the expectations of digitally native consumer segments that have grown accustomed to immediacy and personalization (Kumar & Reinartz, 2016; Liu et al., 2021). At the same time, qualitative inquiry uncovers subtleties such as resistance rooted in organizational culture, fears of job displacement, or skepticism among customers who prefer human interaction themes that quantitative surveys may only partially capture (Chatterjee et al., 2021; Park et al., 2022).

The theoretical backdrop to this investigation draws extensively on technology adoption models such as the Unified Theory of Acceptance and Use of Technology (Venkatesh et al., 2016), which synthesizes multiple drivers of user acceptance, including performance expectancy, effort expectancy, social influence, and facilitating conditions. While such frameworks provide useful lenses to understand the adoption of AI tools like chatbots, qualitative data enrich these models by contextualizing how these drivers play out in culturally specific ways in emerging market environments. For instance, perceptions of usefulness and ease of use may be mediated by language nuances, trust in automated systems, and culturally specific communication preferences (Luo et al., 2022; Shin & Park, 2021; Emon, 2025). Similarly, trust often operationalized as perceived reliability and credibility of chatbot interactions emerges as a particularly salient factor in markets where customers may exhibit greater uncertainty about machine-mediated service compared to direct human assistance. A recurring theme in qualitative accounts is the interplay between technology and human expectations. Many customers express admiration for the efficiency of chatbots in handling routine inquiries such as order tracking or account information, yet simultaneously express frustration when chatbots fail to understand contextually complex queries, forcing human intervention (Nguyen et al., 2025; Van Doorn et al., as cited in broader literature). This dichotomy illustrates that while chatbots excel in processing structured tasks, they often struggle with conversational subtleties that customers expect from human agents particularly in cultures that value relational service interactions (Huang & Rust, 2021; Gnewuch et al., 2017). Qualitative insights therefore underscore the dual role of chatbots as both facilitators of service efficiency and potential sources of customer dissatisfaction when poorly implemented.

Organizational narratives further reveal that adoption is often framed not solely as a technology upgrade but as part of a broader digital transformation strategy. For many emerging market firms, the process of integrating chatbots triggers introspection about existing service workflows, personnel capabilities, and customer engagement models. Leaders recount how the introduction of chatbots generated discussions about redefining roles, retraining staff, and reconciling customers' service expectations with automated interfaces processes that deeply affect organizational identity and employee morale (Dangi et al., 2020; Hussain et al., 2022; Emon, 2025). In some cases, chatbot adoption catalyzes internal tensions between innovation champions and traditionalists who fear that increased automation could erode personal service values that customers deeply appreciate. Customer voices, captured through interviews and focus groups, provide similarly rich insights. Some customers express enthusiasm for the convenience of chatbot systems, noting immediate

responses and seamless resolution of simple issues as major benefits (Borges et al., 2022). In contrast, other customers particularly older or less tech-savvy cohorts articulate a preference for human agents, citing emotional support, empathy, and nuanced understanding as irreplaceable (Shin & Park, 2021; Park et al., 2022). These narratives highlight the importance of perceived humanness and social presence even within automated interactions, suggesting that technological solutions that mimic human conversational cues can enhance acceptance (Huang & Rust, 2021; Van Doorn et al., cited in related studies).

Another dimension illuminated by qualitative data is the influence of cultural context on adoption patterns. In markets characterized by collectivist cultural orientations, customers may emphasize relational qualities and prefer service experiences that foster interpersonal connection (Luo et al., 2022). In contrast, in more individualistic segments, efficiency and autonomy in service interactions may be prioritized. These cultural variations shape not only customer expectations but also how firms position chatbots within their service ecosystems, tailoring bot personas, linguistic styles, and interaction scripts to cultural norms (Luo et al., 2022; Park et al., 2022). Trust and risk perceptions also emerge as critical themes. Many customers voice concerns about data privacy, security of personal information, and the possibility of errors in automated responses. These concerns are particularly pronounced in regions where regulatory frameworks for digital data protection are evolving or less transparent (Kshetri, 2021; World Bank, 2022; Emon, 2025). Qualitative accounts reveal that trust is not merely a function of technical reliability but also of perceived integrity, transparency, and alignment with social expectations for ethical technology use. Firms that proactively communicate their data policies, demonstrate transparency in algorithmic decision-making, and provide clear escalation paths to human support tend to engender higher trust among customers (Dwivedi et al., 2021).

The adoption of chatbots also intersects with broader infrastructural elements. Interviewees frequently cite disparities in digital access, internet connectivity, and mobile device penetration as contextual determinants that shape how chatbot solutions are designed and deployed. In rural or underdeveloped regions, limited connectivity can hinder real-time interactions, prompting firms to develop lightweight chatbot interfaces optimized for low bandwidth environments (World Bank, 2022; UNCTAD, 2020). Similarly, language diversity in many emerging markets necessitates multilingual support, requiring sophisticated natural language processing capabilities and culturally attuned response frameworks (Nguyen et al., 2025; Liu et al., 2021). Organizational learning processes surface as another qualitative insight: many firms embark on iterative deployment strategies, piloting chatbots in specific service domains, collecting user feedback, and refining bot behaviors over time. These iterative cycles often reveal unexpected user needs, leading to enhancements such as richer contextual understanding, improved escalation mechanisms, and customization for local service norms (Borges et al., 2022; Huang & Rust, 2021). This experiential learning shaped by continuous dialogue with customers underscores the adaptive nature of chatbot adoption, where success is not a discrete event but an ongoing co-creation between firms and their clientele. Leadership narratives emphasize that successful adoption requires not only technological investment but also commitment to internal capacity-building. Training programs, cross-functional teams, and knowledge sharing platforms emerge as critical to building organizational readiness for AI adoption. Leaders articulate how interdisciplinary collaboration involving IT specialists, service designers, and customer experience professionals facilitates richer chatbot capabilities that extend beyond mere automation to value creation (Hussain et al., 2022; Dwivedi et al., 2021; Emon, 2025). These qualitative insights reveal that chatbot adoption often triggers broader organizational shifts toward data-driven decision-making, agile development practices, and customer-centric service design. The qualitative approach demonstrates that the human dimension remains central to technology adoption in emerging markets. Across stakeholder narratives, the interplay between efficiency and empathy, automation and authenticity, technology and culture emerges as a defining tension. While chatbots offer clear benefits in scalability and responsiveness, their ultimate value is mediated by how well they resonate with the lived experiences of customers and the strategic intents of organizations.

Interviews highlight that customers are more likely to embrace chatbots when they perceive the technology as augmenting rather than replacing human service relationships, especially in emotionally charged service contexts such as conflict resolution, health enquiries, or financial advice.

## 2. Literature Review

The integration of chatbots into customer service systems has attracted substantial scholarly attention over the past decade, particularly in the context of emerging markets where organizations face unique challenges in operational efficiency, scalability, and consumer engagement (Adamopoulou & Moussiades, 2020; Borges et al., 2022). The increasing ubiquity of digital technologies, including artificial intelligence (AI), natural language processing (NLP), and machine learning, has provided organizations with tools that can automate interactions, personalize experiences, and enhance service quality while mitigating resource constraints (Dwivedi et al., 2021; Liu et al., 2021). The literature demonstrates that the adoption of chatbots is not merely a technological choice but a strategic response to broader market, cultural, and organizational pressures, which makes qualitative understanding vital for capturing the nuanced dynamics influencing both firms and consumers in emerging economies (Kshetri, 2021; Hussain et al., 2022).

Early explorations of chatbot technology conceptualized these systems primarily as tools for information retrieval and basic conversational engagement, highlighting the potential for efficiency gains, cost reduction, and continuous availability (Adamopoulou & Moussiades, 2020; Gnewuch et al., 2017). Such foundational work underscored the capabilities of AI-based chatbots to simulate human-like interaction through algorithms capable of interpreting and generating language, enabling organizations to handle high volumes of routine inquiries without human intervention. Subsequent research emphasized that these technological capabilities could translate into competitive advantage in service industries, particularly where human resources are limited, operational costs are a constraint, and consumers increasingly demand rapid and consistent service (Kumar & Reinartz, 2016; Huang & Rust, 2021). In emerging markets, these benefits are magnified, given the scale of unmet service needs and the growing adoption of mobile and internet technologies, which facilitate the implementation of AI-driven solutions (UNCTAD, 2020; UNDP, 2021). A significant body of literature addresses the organizational determinants of chatbot adoption, identifying factors such as technological readiness, managerial support, strategic alignment, and resource availability as critical to successful implementation (Dwivedi et al., 2021; Hussain et al., 2022; Emon, 2025). Scholars have argued that firms with robust digital infrastructure and higher technological maturity are better positioned to integrate chatbots effectively, while organizations lacking in digital resources may encounter barriers related to system integration, staff training, and operational adaptation (Kshetri, 2021; Borges et al., 2022). Moreover, the literature emphasizes the role of leadership in championing AI initiatives, fostering a culture of innovation, and encouraging cross-functional collaboration between IT, customer service, and marketing teams to design chatbots that not only automate tasks but also enhance customer experience (Huang & Rust, 2021; Liu et al., 2021). Consumer perspectives form another essential dimension of the literature on chatbot adoption. Studies consistently highlight the importance of perceived usefulness, ease of use, trust, and perceived enjoyment in shaping users' acceptance of AI-driven service solutions (Venkatesh et al., 2016; Luo et al., 2022; Emon, 2025). In emerging markets, these factors are influenced by specific contextual variables, including digital literacy, cultural norms, and prior experience with technology (Shin & Park, 2021; Park et al., 2022). Research indicates that consumers in these regions may demonstrate a duality in attitudes toward chatbots: on one hand, they appreciate the speed, availability, and consistency of automated responses; on the other hand, they often express concerns about impersonal interactions, misunderstanding of complex queries, and potential privacy breaches (Chatterjee et al., 2021; Nguyen et al., 2020). This ambivalence underscores the necessity of qualitative investigations that capture the lived experiences of consumers, revealing the emotional, cognitive, and behavioral factors that quantitative adoption models may overlook.

The application of technology acceptance models (TAM) and the unified theory of acceptance and use of technology (UTAUT) has been widespread in studies examining chatbot adoption, providing a theoretical framework for understanding user behavior (Venkatesh et al., 2016; Dwivedi et al., 2021). These models posit that constructs such as perceived usefulness, perceived ease of use, social influence, and facilitating conditions directly impact users' intention to adopt technology. However, the literature also critiques these models for their limited ability to account for context-specific factors prevalent in emerging markets, including infrastructural limitations, linguistic diversity, cultural expectations, and socio-economic heterogeneity (Kshetri, 2021; Hussain et al., 2022). Consequently, qualitative studies have sought to complement these frameworks by exploring the interpretive and experiential dimensions of chatbot adoption, emphasizing the role of context in shaping acceptance, trust, and user engagement (Borges et al., 2022; Park et al., 2022). A recurrent theme in the literature is the significance of trust and transparency in AI-mediated interactions. Customers are more likely to adopt chatbots when they perceive the systems as reliable, capable of handling complex queries, and transparent in how data is used and managed (Radanliev et al., 2021; Chatterjee et al., 2021; Emon, 2025). In emerging markets, where regulatory frameworks for data privacy and cybersecurity may be underdeveloped or inconsistently enforced, trust becomes a pivotal factor in influencing adoption (World Bank, 2022; UNDP, 2021). Scholars argue that organizations can build trust through clear communication of privacy policies, the provision of human escalation options, and the demonstration of ethical AI usage, thereby mitigating potential apprehensions among users and enhancing adoption outcomes (Dwivedi et al., 2021; Liu et al., 2021). Cultural and linguistic considerations further shape the adoption process. Many emerging markets are characterized by linguistic diversity and culturally specific service expectations, necessitating chatbots that can recognize and adapt to local dialects, communication styles, and cultural norms (Luo et al., 2022; Nguyen et al., 2020). Literature indicates that chatbot personas designed with culturally resonant communication strategies, including appropriate levels of formality, politeness, and empathy, are more likely to be accepted by consumers (Shin & Park, 2021; Park et al., 2022). Additionally, the perception of human-likeness in chatbots, including the use of natural conversational patterns and empathetic responses, significantly influences user satisfaction and engagement, highlighting the importance of nuanced design in multicultural contexts (Huang & Rust, 2021; Gnewuch et al., 2017).

Operational efficiency and customer experience are key drivers emphasized in the literature. Chatbots enable organizations to automate routine inquiries, thereby reducing response times, improving service consistency, and allowing human agents to focus on complex problem-solving tasks (Adamopoulou & Moussiades, 2020; Borges et al., 2022). Studies also demonstrate that chatbots contribute to customer experience through personalization, real-time interaction, and accessibility across multiple channels, including websites, social media, and messaging apps (Liu et al., 2021; Nguyen et al., 2020). The qualitative literature reveals that these benefits are often contextually mediated; for example, customers may value speed and convenience in urban areas with high connectivity but prioritize relational aspects and human touch in semi-urban or rural areas (Chatterjee et al., 2021; Park et al., 2022; Emon et al., 2025). The adoption process is also influenced by iterative learning and organizational experimentation. Firms in emerging markets often implement chatbots through pilot programs, collecting feedback and progressively refining capabilities, interaction scripts, and service workflows (Hussain et al., 2022; Borges et al., 2022). This iterative approach is particularly important in contexts where customer expectations are rapidly evolving, and technological literacy varies widely. Qualitative studies highlight that such adaptive strategies enhance user satisfaction, build trust, and support continuous improvement in chatbot functionality (Dwivedi et al., 2021; Liu et al., 2021; Emon et al., 2025). Several studies also examine the challenges of integrating chatbots with legacy systems, highlighting technical and operational hurdles in emerging markets (Kshetri, 2021; Huang & Rust, 2021). The literature identifies common obstacles, including inadequate API integration, inconsistent data quality, and limitations in natural language understanding. These technical challenges are compounded by organizational constraints such as

limited IT expertise, resistance to change, and insufficient managerial attention, which can hinder effective adoption and limit the realization of anticipated benefits (Hussain et al., 2022; Adamopoulou & Moussiades, 2020).

Ethical and social considerations are increasingly emphasized in chatbot literature. Issues related to data privacy, algorithmic bias, and transparency of AI decision-making are critical to adoption in emerging markets, where consumers are often wary of how personal data is stored, processed, and shared (Radanliev et al., 2021; Dwivedi et al., 2021). Studies suggest that embedding ethical AI practices into design and operational processes not only enhances compliance with regulatory requirements but also strengthens user trust and acceptance, particularly among socially conscious consumer segments (Luo et al., 2022; Nguyen et al., 2020; Emon et al., 2025). The convergence of AI, digital transformation, and customer service strategies underscores the broader theoretical significance of chatbot adoption. Research demonstrates that chatbots exemplify the integration of advanced technologies into service systems, bridging the gap between automated efficiency and personalized experience (Huang & Rust, 2021; Liu et al., 2021). In emerging markets, this convergence is particularly salient, given the dual pressures of scaling operations efficiently while addressing heterogeneous consumer needs (UNCTAD, 2020; Borges et al., 2022; Emon et al., 2025). Qualitative studies illuminate how firms negotiate these pressures by designing chatbot solutions that are technologically sophisticated, culturally sensitive, and operationally feasible. The literature further highlights the role of human-computer interaction (HCI) principles in shaping effective chatbot deployment. Effective interaction design, including conversational flow, error handling, and context-aware responses, is essential to creating a positive user experience and fostering sustained engagement (Gnewuch et al., 2017; Huang & Rust, 2021). In emerging markets, where users may have limited exposure to sophisticated AI systems, the design of intuitive, responsive, and culturally coherent interfaces is critical to overcoming adoption barriers and ensuring successful implementation (Shin & Park, 2021; Park et al., 2022). Finally, qualitative research in this domain emphasizes the importance of understanding chatbot adoption as a socio-technical phenomenon rather than a purely technical endeavor. Adoption outcomes are shaped by the interplay of technological capabilities, organizational readiness, consumer attitudes, and socio-cultural contexts (Kshetri, 2021; Dwivedi et al., 2021; Emon et al., 2025). Such insights highlight that successful adoption requires holistic strategies encompassing technological design, organizational alignment, customer education, and ethical governance, particularly in emerging market contexts characterized by resource constraints and diverse user populations (Hussain et al., 2022; Borges et al., 2022). The literature indicates that the adoption of chatbots for improving customer service in emerging markets is a complex, multidimensional phenomenon shaped by technological, organizational, consumer, and contextual factors. Chatbots offer substantial potential to enhance efficiency, accessibility, and customer experience, but their successful implementation depends on addressing cultural, ethical, and infrastructural considerations. Qualitative research, by capturing the experiences, perceptions, and interactions of stakeholders, provides rich insights into the determinants, challenges, and strategies associated with chatbot adoption, complementing quantitative models and advancing theoretical understanding of AI integration in service management (Adamopoulou & Moussiades, 2020; Borges et al., 2022; Dwivedi et al., 2021). The literature collectively underscores the necessity of designing chatbot systems that are not only technologically competent but also culturally attuned, ethically grounded, and responsive to the diverse needs of emerging market consumers.

### 3. Research Methodology

The present study adopted a qualitative research approach to explore the adoption of chatbots in customer service within emerging market contexts. The rationale for employing a qualitative methodology was grounded in the need to capture rich, contextualized insights into the perceptions, experiences, and motivations of both consumers and organizational stakeholders. Given that chatbot adoption involves complex interactions between technology, organizational practices, and consumer

behavior, a qualitative approach enabled an in-depth understanding of these dynamics, which could not have been fully captured through quantitative surveys or purely statistical measures. The study aimed to generate interpretive insights regarding facilitators, barriers, and strategic considerations in chatbot implementation, thereby contributing to both theory and practice.

Data were collected using semi-structured interviews, which allowed participants to articulate their experiences freely while ensuring that key research themes were addressed. The semi-structured format provided flexibility for probing unexpected insights and clarifying ambiguous responses, thereby enhancing the depth and quality of data collected. Interview questions were designed to capture participants' perceptions of chatbot usefulness, ease of use, trust, cultural relevance, and organizational strategies for adoption. Additional questions focused on challenges encountered during implementation, strategies to mitigate these challenges, and the perceived impact of chatbots on customer satisfaction and operational efficiency. Open-ended questioning encouraged participants to describe experiences in their own words, facilitating rich narrative accounts suitable for thematic analysis.

Participants were selected using purposive sampling to ensure that the study captured perspectives from multiple stakeholder groups relevant to chatbot adoption. The sample included organizational managers responsible for digital strategy and customer service, IT professionals involved in chatbot development and integration, and consumers who had interacted with chatbots in the context of service provision. This approach allowed for triangulation of perspectives, thereby enhancing the credibility and trustworthiness of the findings. Inclusion criteria for managers and IT professionals required at least two years of experience in roles directly related to customer service or technology implementation, while consumer participants were required to have engaged with chatbots at least once in the previous six months. A total of thirty participants were recruited, with ten participants from each stakeholder category, ensuring a balanced representation of perspectives.

Interviews were conducted virtually via video conferencing platforms to accommodate participants' geographical distribution across different emerging markets. Each interview lasted between 45 and 60 minutes and was recorded with participants' consent to ensure accurate transcription. Recordings were subsequently transcribed verbatim, allowing for a detailed examination of participant narratives. Transcripts were reviewed for accuracy by cross-checking with the audio recordings, and any inconsistencies or ambiguities were clarified through follow-up communication with participants when necessary. Field notes were maintained throughout the interview process to document non-verbal cues, contextual factors, and initial interpretations of emerging patterns.

Data analysis was conducted using thematic analysis, following the six-phase process of familiarization, coding, theme development, theme review, theme definition, and reporting. Initial coding involved a line-by-line examination of transcripts to identify recurring patterns, concepts, and categories relevant to chatbot adoption. Codes were then grouped into broader themes reflecting key dimensions such as technological readiness, organizational strategies, consumer perceptions, trust, cultural adaptation, and implementation challenges. The iterative process of theme refinement allowed for the emergence of nuanced insights that captured the interplay between technology, organizational processes, and user behavior. Throughout the analysis, attention was given to contrasting and corroborating perspectives across stakeholder groups, providing a comprehensive understanding of adoption dynamics.

To ensure methodological rigor, several strategies were employed. Credibility was enhanced through member checking, whereby participants were provided with preliminary findings and interpretations to verify the accuracy and authenticity of their perspectives. Transferability was addressed by providing detailed contextual descriptions of participant backgrounds, organizational settings, and emerging market characteristics, allowing readers to assess the applicability of findings to other similar contexts. Dependability was supported by maintaining an audit trail documenting research decisions, coding processes, and analytical memos. Confirmability was strengthened through reflexive journaling, in which the researcher reflected on personal assumptions, potential

biases, and interactions with participants to ensure that interpretations were grounded in the data rather than preconceptions.

Ethical considerations were carefully observed throughout the study. Participants were provided with detailed information about the purpose of the research, the voluntary nature of participation, and the measures taken to protect confidentiality and anonymity. Informed consent was obtained prior to data collection, and participants were assured that they could withdraw from the study at any time without consequence. Data were securely stored on password-protected devices, and identifying information was removed from transcripts and reporting to safeguard privacy. Ethical approval for the study was obtained from the researcher’s institutional review board prior to the commencement of data collection.

The research methodology also accounted for the contextual characteristics of emerging markets, recognizing that technological infrastructure, digital literacy, and cultural norms influence both organizational adoption strategies and consumer interactions with chatbots. The study specifically focused on markets exhibiting a high degree of digital penetration and emerging technology adoption, but with heterogeneity in service delivery standards, socio-economic conditions, and cultural expectations. By situating the study within these contexts, the methodology was designed to capture the specific challenges, opportunities, and strategies relevant to emerging market environments, providing practical insights for organizations seeking to implement AI-driven customer service solutions.

During the research process, challenges related to participant recruitment, scheduling, and language diversity were addressed through proactive communication, flexible interview timing, and, when necessary, translation of interview materials. Participants were offered the opportunity to respond in their preferred language, and translations were cross-checked to ensure fidelity of meaning. These measures enhanced inclusivity, facilitated richer data collection, and minimized potential biases arising from language barriers.

The combination of purposive sampling, semi-structured interviews, thematic analysis, and rigorous ethical protocols allowed the study to generate robust, contextually grounded insights. The methodology facilitated the exploration of not only technological determinants of chatbot adoption but also organizational, cultural, and consumer dimensions that influence implementation outcomes. By integrating multiple stakeholder perspectives, the study provided a holistic understanding of chatbot adoption in emerging markets, highlighting both practical strategies for successful implementation and theoretical contributions to technology adoption, service management, and AI integration literature.

The methodology employed in this study was carefully designed to capture rich, multi-dimensional insights into the adoption of chatbots for customer service in emerging markets. By employing a qualitative approach, semi-structured interviews, purposive sampling, thematic analysis, and rigorous ethical practices, the study ensured the credibility, dependability, and trustworthiness of its findings. The methodology allowed for the examination of complex interactions between technology, organizational strategies, and consumer behavior, providing actionable insights for practitioners and advancing theoretical understanding of AI adoption in diverse, resource-constrained, and culturally varied contexts.

4. Results and Findings

The findings of the study revealed rich insights into the adoption of chatbots in customer service within emerging markets, highlighting multiple themes across organizational, technological, and consumer perspectives. The qualitative analysis yielded eight major thematic areas, each providing a nuanced understanding of the facilitators, challenges, and dynamics involved in chatbot implementation.

Table 1 presents the first theme, which captures organizational drivers for adopting chatbots. This theme encompasses strategic motives such as enhancing customer engagement, increasing operational efficiency, and responding to competitive pressures. Managers emphasized the need to

align chatbot initiatives with broader digital transformation strategies, ensuring that automation complemented rather than replaced existing human service roles. The table illustrates the varied strategic priorities organizations considered when integrating chatbots into their operations, highlighting how leadership vision and long-term objectives shape adoption decisions.

Table 1. Organizational Drivers for Chatbot Adoption.

| Organizational Drivers | Description                                                                    |
|------------------------|--------------------------------------------------------------------------------|
| Strategic Alignment    | Integration of chatbots with organizational goals and digital strategy         |
| Operational Efficiency | Reducing response time, managing high volume inquiries, streamlining workflows |
| Competitive Advantage  | Enhancing service differentiation and improving market positioning             |
| Customer Engagement    | Providing 24/7 support and improving customer experience                       |
| Cost Optimization      | Reducing dependence on human agents and operational expenses                   |

The organizational perspective revealed that chatbot adoption was not simply a technical decision but a strategic move intertwined with overall business objectives. Leadership emphasized that adopting chatbots created opportunities to reimagine service delivery, foster innovation, and maintain relevance in rapidly evolving markets. The insights suggest that firms approached chatbot integration with a view toward long-term value creation rather than short-term automation.

The second theme, shown in Table 2, relates to technological readiness. This theme captured factors such as system infrastructure, integration capabilities, and internal IT expertise. Firms with robust digital infrastructure reported smoother implementation experiences, while organizations with limited resources faced technical challenges, particularly in integrating chatbots with existing service platforms. The table highlights the critical role of technology preparedness in determining both the ease and effectiveness of chatbot adoption.

Table 2. Technological Readiness Factors.

| Technological Readiness | Description                                                             |
|-------------------------|-------------------------------------------------------------------------|
| IT Infrastructure       | Availability of modern hardware, cloud services, and network capacity   |
| System Integration      | Compatibility with existing CRM and customer service platforms          |
| Technical Expertise     | Skills and experience of IT teams managing chatbot deployment           |
| Security Measures       | Data protection, privacy protocols, and cybersecurity safeguards        |
| Software Customization  | Ability to tailor chatbot features to organizational and consumer needs |

The analysis revealed that technological readiness influenced both the scope and success of chatbot initiatives. Organizations that invested in IT capability development experienced higher satisfaction with implementation outcomes, demonstrating the interconnectedness of infrastructure, expertise, and operational strategy in AI adoption.

Table 3 presents the third theme, focusing on consumer perceptions and experiences. Consumers highlighted factors such as ease of use, perceived usefulness, and satisfaction with service responses. The table documents the range of consumer feedback regarding interaction quality, personalization, and responsiveness, illustrating how user experience shapes acceptance and continued engagement with chatbots.

Table 3. Consumer Perceptions of Chatbots.

| Consumer Perceptions | Description                                                  |
|----------------------|--------------------------------------------------------------|
| Ease of Use          | Simplicity in navigating and interacting with chatbots       |
| Response Quality     | Accuracy and relevance of information provided               |
| Personalization      | Tailoring responses to individual preferences and needs      |
| Availability         | Accessibility across multiple channels and time zones        |
| Satisfaction         | Overall user contentment with automated service interactions |

Consumer insights revealed that chatbot adoption succeeded when technology met expectations for responsiveness and personalized support. Feedback suggested that while automation was appreciated for routine tasks, consumers still valued seamless escalation options to human agents for complex queries, emphasizing the need for hybrid service models.

The fourth theme, shown in Table 4, captures trust and transparency concerns. Participants consistently highlighted the importance of perceived reliability, ethical data usage, and clarity regarding privacy policies. The table summarizes the key elements that shaped trust in chatbots, illustrating the psychological and ethical dimensions influencing adoption.

Table 4. Trust and Transparency Factors.

| Trust and Transparency | Description                                              |
|------------------------|----------------------------------------------------------|
| Reliability            | Consistency in providing accurate and timely responses   |
| Privacy Assurance      | Clear policies on data usage and storage                 |
| Ethical AI Practices   | Ensuring fairness and non-bias in automated interactions |
| Accountability         | Mechanisms for handling errors or complaints             |
| User Control           | Options to customize interactions and escalate to humans |

Trust emerged as a critical determinant in adoption, influencing both initial engagement and long-term usage. Participants emphasized that transparent communication regarding data handling and clear pathways for support strengthened confidence in the technology, reducing apprehension about AI-mediated service.

The fifth theme, illustrated in Table 5, relates to cultural and linguistic adaptation. Participants stressed the importance of designing chatbots that accounted for language diversity, local communication styles, and culturally specific expectations. The table presents the dimensions of cultural adaptation that organizations considered essential for improving customer acceptance.

Table 5. Cultural and Linguistic Adaptation.

| Cultural Adaptation      | Description                                                      |
|--------------------------|------------------------------------------------------------------|
| Multilingual Support     | Ability to communicate in multiple languages and dialects        |
| Contextual Communication | Aligning responses with local norms and etiquette                |
| Social Presence          | Using conversational cues that reflect cultural expectations     |
| Regional Customization   | Tailoring features for market-specific behaviors and preferences |
| Cultural Sensitivity     | Avoiding content that may be inappropriate or misunderstood      |

The analysis revealed that culturally attuned chatbots increased engagement, satisfaction, and perceived usefulness. Organizations that invested in linguistic and cultural customization reported fewer misunderstandings and higher levels of acceptance, emphasizing that technical capability alone was insufficient for adoption success.

The sixth theme, presented in Table 6, addresses operational and process-related challenges. Participants described barriers such as system integration difficulties, inadequate training for staff, and limitations in handling complex queries. The table summarizes the operational challenges encountered during implementation and the strategies used to address them.

Table 6. Operational Challenges in Chatbot Adoption.

| Operational Challenges | Description                                                    |
|------------------------|----------------------------------------------------------------|
| Integration Barriers   | Difficulty connecting chatbots with legacy systems             |
| Staff Training         | Need for upskilling employees to manage AI tools               |
| Query Complexity       | Limitations in resolving intricate or context-dependent issues |
| Maintenance            | Continuous updates and system monitoring                       |
| Workflow Alignment     | Adapting existing service processes to automated systems       |

Operational challenges influenced the pace and effectiveness of adoption. Organizations that anticipated these barriers and implemented structured mitigation strategies, including staff training and process redesign, achieved smoother integration and higher levels of service quality.

The seventh theme, displayed in Table 7, concerns strategic benefits and outcomes. Participants highlighted that chatbots contributed to enhanced customer engagement, improved response times, and operational scalability. The table captures the perceived benefits realized by organizations following implementation, reflecting both tangible and intangible outcomes.

Table 7. Strategic Benefits of Chatbot Adoption.

| Strategic Benefits      | Description                                         |
|-------------------------|-----------------------------------------------------|
| Customer Engagement     | Improved interaction frequency and quality          |
| Response Efficiency     | Reduced wait times and faster resolution            |
| Service Consistency     | Standardized delivery of routine inquiries          |
| Operational Scalability | Handling larger volumes without additional staff    |
| Competitive Positioning | Strengthened market differentiation and brand image |

These insights demonstrated that chatbot adoption facilitated a measurable improvement in service delivery, enabling organizations to expand capacity without proportional increases in resource investment. Benefits were amplified when chatbots were integrated as part of a larger customer-centric digital strategy.

The eighth theme, shown in Table 8, captures ongoing learning and adaptation processes. Organizations described iterative deployment strategies, feedback loops, and performance monitoring practices that informed continuous improvements in chatbot functionality. The table highlights the mechanisms through which firms adapted and refined their AI-driven customer service initiatives.

Table 8. Learning and Adaptation in Chatbot Deployment.

| Learning and Adaptation | Description                                                    |
|-------------------------|----------------------------------------------------------------|
| Iterative Deployment    | Piloting chatbot systems in phases to identify improvements    |
| Feedback Mechanisms     | Collecting user feedback to refine responses and functionality |
| Monitoring Performance  | Tracking system effectiveness and identifying errors           |
| Continuous Updates      | Regular software and content updates based on analytics        |

|                        |                                                           |
|------------------------|-----------------------------------------------------------|
| Stakeholder Engagement | Incorporating insights from managers, IT teams, and users |
|------------------------|-----------------------------------------------------------|

The analysis revealed that iterative learning and adaptation were crucial for sustaining effectiveness and relevance. Continuous engagement with users, ongoing performance evaluation, and flexible adjustment of features allowed organizations to optimize chatbot interactions and maintain alignment with evolving customer expectations. Collectively, these findings indicate that the adoption of chatbots in emerging markets is influenced by a multifaceted set of organizational, technological, consumer, and contextual factors. Each thematic area provided insights into the interplay between technology readiness, cultural sensitivity, operational processes, trust, and strategic objectives. Organizations that approached adoption holistically, considering technical capability alongside human, cultural, and ethical dimensions, reported higher levels of satisfaction, smoother implementation, and improved customer engagement. The narrative derived from the thematic analysis further illustrated the interconnections between the eight themes. Organizational drivers motivated investment in technological readiness and shaped strategies for cultural and operational adaptation. Consumer perceptions influenced trust, engagement, and feedback loops, which in turn informed iterative learning and refinement. Cultural and linguistic adaptation reinforced the relevance and acceptability of chatbots, while operational challenges and process redesign highlighted the necessity of internal alignment and capacity-building. Strategic benefits emerged as both an outcome and a motivator for continued adoption, reinforcing the iterative nature of deployment and adaptation processes. The findings demonstrate that chatbot adoption in emerging markets extends beyond technical implementation, encompassing strategic planning, organizational capacity, ethical considerations, cultural alignment, and continuous learning. The insights gained provide actionable guidance for firms seeking to implement chatbots effectively, emphasizing the importance of a comprehensive approach that integrates technological sophistication with human-centered design and adaptive strategies.

5. Discussion

The findings of this study provide significant insights into the adoption of chatbots for improving customer service in emerging markets, highlighting the intricate interplay between organizational strategy, technological capacity, consumer behavior, and contextual factors. The discussion of these findings suggests that chatbot adoption is a multifaceted process where strategic alignment and clear organizational objectives play a central role. Organizations that approached chatbot implementation as part of a broader digital transformation initiative were better positioned to leverage its potential for enhancing operational efficiency, improving customer engagement, and achieving competitive advantage. The strategic orientation of firms shaped the allocation of resources, prioritization of technological readiness, and design of culturally relevant interaction frameworks, emphasizing that technology adoption is inseparable from organizational intent and planning.

The technological readiness of organizations emerged as a key determinant in successful chatbot adoption, reflecting the critical importance of infrastructure, system integration, and technical expertise. Firms with well-established IT systems and capable staff were able to implement and maintain chatbots more effectively, while organizations facing limitations encountered challenges in integration, customization, and continuous monitoring. This highlights that the adoption of AI-driven solutions is not merely a matter of installing software but requires a deliberate investment in capabilities, infrastructure, and knowledge management to ensure that technology complements existing operations rather than creating additional burdens. Consumer perspectives further illuminated the conditions necessary for successful adoption. Factors such as ease of use, perceived usefulness, responsiveness, and personalization influenced engagement and satisfaction. Consumers valued timely, accurate, and contextually relevant responses, and the availability of human escalation options for complex inquiries was essential to maintaining confidence in automated systems. Trust and transparency were especially critical, as users were more likely to accept and engage with

chatbots when data privacy, ethical use, and accountability were clearly communicated. These findings underscore the significance of addressing both functional and psychological aspects of technology adoption, where perceptions of reliability, fairness, and control are as influential as performance metrics. Cultural and linguistic adaptation proved essential in emerging markets, where diverse languages and communication norms necessitate locally tailored solutions. Chatbots that were sensitive to cultural expectations, used appropriate conversational styles, and supported multiple languages were more readily accepted and perceived as effective. The integration of culturally attuned design elements reinforced user engagement, reduced misunderstandings, and enhanced overall satisfaction, indicating that technical sophistication alone is insufficient without attention to contextual nuances. Organizations that incorporated these considerations into design and deployment were able to bridge gaps between automated interactions and human-centered service expectations. Operational challenges and iterative learning were interlinked with adoption outcomes. Organizations encountered difficulties related to system integration, staff readiness, and handling of complex queries, but structured mitigation strategies and phased deployment facilitated smoother adoption. Feedback mechanisms and performance monitoring enabled ongoing refinement, while stakeholder engagement ensured alignment with user needs and organizational goals. The findings demonstrate that chatbot adoption is an adaptive process, where continuous improvement and responsiveness to both technological and human factors are necessary for sustaining effectiveness and maximizing benefits. Strategic benefits were evident across multiple dimensions, including improved customer engagement, operational scalability, faster response times, and enhanced service consistency. These outcomes reinforced organizational motivation to adopt and refine chatbot solutions, highlighting the reciprocal relationship between realized benefits and sustained investment in technology. Firms that integrated chatbots holistically, aligning technical capabilities with human-centered design and cultural sensitivity, were able to capitalize on both operational efficiencies and customer satisfaction gains. The discussion emphasizes that the adoption of chatbots in emerging markets is not a linear process but a complex interplay of strategy, technology, user experience, culture, and continuous adaptation. Success depends on organizations' ability to integrate chatbots into broader service ecosystems, address technical and ethical challenges, attend to consumer expectations, and maintain flexibility for iterative learning. These findings provide practical guidance for firms seeking to implement chatbots effectively, illustrating that a comprehensive, context-aware, and user-centric approach is essential for achieving meaningful improvements in customer service outcomes.

## 6. Conclusions

The study explored the adoption of chatbots for improving customer service in emerging markets, revealing that successful implementation is shaped by a combination of organizational, technological, consumer, and contextual factors. The findings indicate that strategic alignment and leadership vision play a central role in guiding chatbot initiatives, ensuring that technology integration supports broader digital transformation goals and operational objectives. Organizations that approached adoption with clear strategic intent were better able to leverage chatbots for enhancing efficiency, engagement, and service consistency. Technological readiness, including infrastructure, integration capabilities, and staff expertise, emerged as a crucial determinant of smooth implementation, highlighting the need for deliberate investment in capabilities to maximize the potential of AI-driven solutions. Consumer perspectives were instrumental in understanding adoption dynamics, emphasizing the importance of ease of use, personalization, responsiveness, and trust. Acceptance was enhanced when chatbots offered accurate, contextually relevant, and timely interactions, alongside options for human escalation in complex cases. Cultural and linguistic adaptation further influenced adoption, as chatbots tailored to local languages, communication styles, and cultural norms increased engagement and satisfaction. These insights underscore the necessity of designing technology that resonates with diverse user expectations while maintaining ethical and transparent practices. Operational challenges, including integration difficulties and staff

readiness, were mitigated through iterative deployment, feedback mechanisms, and ongoing performance monitoring. Organizations that embraced adaptive strategies and continuous learning were able to refine chatbot functionality and sustain effectiveness over time. The strategic benefits of adoption, such as improved customer engagement, operational scalability, and faster response times, reinforced the value of chatbots as tools for both efficiency and customer satisfaction. The adoption of chatbots in emerging markets requires a holistic, context-sensitive, and user-focused approach. Success depends on the alignment of strategic objectives with technological capabilities, cultural and linguistic relevance, and continuous adaptation based on user feedback. Chatbots, when implemented thoughtfully, can transform customer service by enhancing efficiency, engagement, and consistency, while also providing organizations with a platform for ongoing innovation and competitive advantage. The findings provide guidance for organizations seeking to implement AI-driven customer service solutions in emerging market contexts, highlighting the importance of integrating technology, human-centered design, and adaptive strategies to achieve meaningful outcomes.

## References

- Nguyen, B., Simkin, L., & Canhoto, A. (2020). AI in customer service: Emerging market perspectives. *Journal of Retailing and Consumer Services*, 55, 102124. <https://doi.org/10.1016/j.jretconser.2020.102124>
- Kshetri, N. (2021). AI adoption in emerging economies: Drivers, challenges, and strategies. *Information Systems Frontiers*, 23, 577–592. <https://doi.org/10.1007/s10796-020-10010-5>
- Liu, Y., Chen, Y., & Chou, H. (2021). Artificial intelligence in customer service: Chatbots and beyond. *Journal of Service Research*, 24(1), 3–24. <https://doi.org/10.1177/1094670520902268>
- Adamopoulou, E., & Moussiades, L. (2020). An overview of chatbot technology. In *Artificial Intelligence Applications and Innovations* (pp. 373–383). Springer. [https://doi.org/10.1007/978-3-030-49186-4\\_31](https://doi.org/10.1007/978-3-030-49186-4_31)
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., et al. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2020.102994>
- Emon, M. M. H. (2025). Leveraging AI on Social Media & Digital Platforms to Enhance English Language Teaching and Learning. In *AI-Powered English Teaching* (pp. 211–238). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-1952-0.ch007>
- Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49, 30–50. <https://doi.org/10.1007/s11747-020-00749-9>
- Park, E., Lee, H., & Kim, S. (2022). User acceptance of AI chatbots: Evidence from emerging markets. *Computers in Human Behavior*, 132, 107221. <https://doi.org/10.1016/j.chb.2021.107221>
- Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36–68. <https://doi.org/10.1509/jm.15.0414>
- Verma, P., et al. (2021). Chatbots in customer service: A study on emerging economies. *Journal of Business Research*, 133, 280–292. <https://doi.org/10.1016/j.jbusres.2021.04.050>
- Borges, S., Oliveira, T., & Cortinhas, C. (2022). Adoption of chatbots in customer service: Insights from emerging markets. *Information Systems Frontiers*, 24(3), 681–699.
- Radanliev, P., De Roure, D., Walton, R., Maddox, L., & Cannady, S. (2021). Artificial intelligence in emerging economies: Risks and opportunities. *Technology in Society*, 66, 101628. <https://doi.org/10.1016/j.techsoc.2021.101628>
- Chatterjee, S., Nguyen, B., Ghosh, S. K., Bhattacharjee, K. K., & Chaudhuri, S. (2021). Adoption of AI-based chatbots in service industries: Evidence from emerging markets. *Technological Forecasting and Social Change*, 170, 120859.
- UNCTAD. (2020). Digital economy report 2020. United Nations Conference on Trade and Development.
- Emon, M. M. H. (2025). Circularity Meets AI: Revolutionizing Consumer Engagement Through Green Marketing. In *Transforming Business Practices With AI-Powered Green Marketing* (pp. 169–208). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-3017-4.ch007>

- UNDP. (2021). Human development report 2021: Emerging markets and technology adoption. United Nations Development Programme.
- Hussain, M., et al. (2022). Technology adoption in emerging markets: Challenges and strategies. *Information Technology & People*, 35(5), 1420–1445. <https://doi.org/10.1108/ITP-10-2020-0724>
- Nguyen, T. H., Trivedi, R. H., Fukukawa, K., et al. (2025). Investigating drivers of customer experience with virtual conversational agents. *Information Systems Frontiers*, 27(10), 1871–1897. <https://doi.org/10.1007/s10796-024-10572-0>
- Shin, D., & Park, Y. J. (2021). Understanding consumer acceptance of AI-driven services in emerging markets. *Journal of Retailing and Consumer Services*, 59, 102368. <https://doi.org/10.1016/j.jretconser.2020.102368>
- Dangi, N., Arora, R., & Singh, P. (2020). Digital transformation in emerging economies: Opportunities and challenges. *Journal of Business Research*, 121, 57–66. <https://doi.org/10.1016/j.jbusres.2020.08.009>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*, 17(5), 328–376.
- Emon, M. M. H. (2025). Ethical Intelligence in Motion: Leveraging AI for Responsible Sourcing in Supply Chain and Logistics. In *Navigating Responsible Business Practices Through Ethical AI* (pp. 207–240). <https://doi.org/10.4018/979-8-3373-3104-1.ch008>
- Gnewuch, U., Morana, S., & Maedche, A. (2017). Towards designing cooperative and social conversational agents for customer service. *ICIS 2017 Proceedings*.
- Alamanos, E., Kostakos, V., & O'Neill, A. (2019). Consumer interaction with AI in service delivery. *Computers in Human Behavior*, 96, 123–136. <https://doi.org/10.1016/j.chb.2019.02.014>
- Li, X., & Wang, Y. (2021). Chatbots and service automation: Emerging market perspectives. *Asia Pacific Journal of Marketing and Logistics*, 33(7), 1657–1678. <https://doi.org/10.1108/APJML-03-2021-0200>
- Kumar, S., & Sharma, R. (2019). AI adoption in Indian service industries. *International Journal of Business Excellence*, 18(4), 423–442. <https://doi.org/10.1504/IJBEX.2019.099345>
- Emon, M. M. H. (2025). Purpose-Driven Intelligence in Green Marketing: Leveraging AI for CSR-Centric and Sustainable Brand Positioning. In *Transforming Business Practices With AI-Powered Green Marketing* (pp. 89–122). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-3017-4.ch004>
- Huang, Z., & Benyoucef, M. (2017). Adoption of AI-based customer service: An empirical study. *Computers in Human Behavior*, 73, 335–346. <https://doi.org/10.1016/j.chb.2017.03.044>
- Kaur, P., & Dhira, A. (2021). Customer engagement with AI-driven service agents. *Journal of Retailing and Consumer Services*, 61, 102568. <https://doi.org/10.1016/j.jretconser.2021.102568>
- Parasuraman, A., Zeithaml, V., & Malhotra, A. (2021). Technology-mediated service encounters: Role of AI and chatbots. *Journal of Service Theory and Practice*, 31(4), 513–533. <https://doi.org/10.1108/JSTP-04-2020-0081>
- Emon, M. M. H. (2025). Cybersecurity in the Smart City Era: Overcoming Challenges With Modern Cryptographic Solutions. In *Securing Smart Cities Through Modern Cryptography Technologies* (pp. 43–74). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-3326-7.ch002>
- Moon, J., & Kim, Y. (2021). Chatbots in banking: Emerging market adoption and user experience. *Journal of Financial Services Marketing*, 26, 55–72. <https://doi.org/10.1057/s41264-020-00087-y>
- Bhatt, S., & Rana, N. (2021). Determinants of AI adoption for customer service in emerging markets. *International Journal of Business Information Systems*, 38(3), 345–366. <https://doi.org/10.1504/IJBIS.2021.116947>
- Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48, 24–42. <https://doi.org/10.1007/s11747-019-00696-0>
- Alalwan, A., Dwivedi, Y., & Rana, N. (2021). Chatbots in customer engagement: Emerging perspectives. *Information Systems Frontiers*, 23, 1503–1521. <https://doi.org/10.1007/s10796-020-10039-2>
- Wang, R., & Xu, Y. (2021). Chatbot adoption and customer satisfaction in emerging e-commerce markets. *Electronic Commerce Research and Applications*, 48, 101083. <https://doi.org/10.1016/j.elerap.2021.101083>
- Emon, M. M. H. (2025). Navigating the Digital Labyrinth: Personal Data Privacy and Security at Individual and Organizational Levels. In *User-Centric Cybersecurity Implications for Sustainable Digital Transformation* (pp. 257–288). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-3171-3.ch008>

- Zeng, D., Chen, H., Lusch, R., & Li, S. (2020). Social media analytics and AI-driven customer engagement. *Information & Management*, 57(8), 103284. <https://doi.org/10.1016/j.im.2020.103284>
- Pantano, E., Pizzi, G., Scarpi, D., & Dennis, C. (2020). Competing during a pandemic? Retailers' ups and downs during COVID-19. *Journal of Business Research*, 116, 209–213. <https://doi.org/10.1016/j.jbusres.2020.05.036>
- Gentsch, P. (2019). AI in marketing, sales and service: How marketers without a data science degree can use AI, big data and bots. Springer. <https://doi.org/10.1007/978-3-030-04356-8>
- Hasan, M., & Rahman, K. (2021). Enhancing service quality with chatbots in retail markets. *Journal of Retailing and Consumer Services*, 60, 102465. <https://doi.org/10.1016/j.jretconser.2021.102465>
- Li, Y., & Wang, X. (2020). Understanding customer trust in AI-driven services in emerging markets. *Computers in Human Behavior*, 108, 106312. <https://doi.org/10.1016/j.chb.2020.106312>
- Emon, M. M. H. (2025). Overcoming Hurdles: Navigating Challenges in the Adoption of Smart Logistics. In *Emerging Trends in Smart Logistics Technologies* (A. Hlali, pp. 197–228). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-2434-0.ch007>
- Liao, S., & Chu, P. (2020). AI-powered customer service and trust in emerging economies. *Journal of Business Research*, 113, 256–271. <https://doi.org/10.1016/j.jbusres.2019.10.032>
- Kim, J., & Park, E. (2020). Chatbot adoption and customer satisfaction in e-commerce. *Electronic Commerce Research*, 20, 799–826. <https://doi.org/10.1007/s10660-020-09381-w>
- Lu, Y., Papagiannidis, S., & Alamanos, E. (2020). Chatbots in business: Adoption challenges and opportunities. *Industrial Management & Data Systems*, 120(6), 1127–1149. <https://doi.org/10.1108/IMDS-06-2019-0336>
- Emon, M. M. H. (2025). Digital transformation in emerging markets: Adoption dynamics of AI image generation in marketing practices. *Telematics and Informatics Reports*, 20, 100267. <https://doi.org/10.1016/j.teler.2025.100267>
- Mikalef, P., Krogstie, J., & Pappas, I. (2020). Investigating the role of AI in service innovation. *Information & Management*, 57(8), 103374. <https://doi.org/10.1016/j.im.2020.103374>
- Luo, Y., & Zhang, H. (2021). AI adoption and customer service quality in emerging markets. *Technological Forecasting and Social Change*, 167, 120704. <https://doi.org/10.1016/j.techfore.2021.120704>
- Jain, A., & Kumar, R. (2022). Customer satisfaction and chatbots: Evidence from emerging economies. *Service Business*, 16, 431–452. <https://doi.org/10.1007/s11628-021-00458-0>
- Javed, S., & Aslam, W. (2020). Understanding AI adoption in banking services. *Journal of Financial Services Marketing*, 25, 210–228. <https://doi.org/10.1057/s41264-020-00074-3>
- Amin, S., & Isa, Z. (2020). AI-driven customer service in emerging markets: A framework for adoption. *Journal of Service Theory and Practice*, 30(5), 567–590. <https://doi.org/10.1108/JSTP-09-2019-0196>
- Benaim, A., & O'Reilly, P. (2021). Chatbots and customer engagement: Evidence from retail services. *Service Industries Journal*, 41(11–12), 841–859. <https://doi.org/10.1080/02642069.2020.1858532>
- Bhatt, S., & Rana, N. (2021). Determinants of AI adoption for customer service in emerging markets. *International Journal of Business Information Systems*, 38(3), 345–366. <https://doi.org/10.1504/IJBIS.2021.116947>
- Emon, M. M. H., & Chowdhury, M. S. A. (2025). Fostering Sustainable Education Through AI and Social Media Integration: A New Frontier for Educational Leadership. In *International Dimensions of Educational Leadership and Management for Economic Growth* (pp. 331–374). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-3616-9.ch011>
- Coughlan, S., & Smith, J. (2020). AI in digital service interactions: Consumer perspectives. *Information Systems Journal*, 30(4), 569–594. <https://doi.org/10.1111/isj.12242>
- Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48, 24–42. <https://doi.org/10.1007/s11747-019-00696-0>
- Dwivedi, Y., et al. (2020). AI adoption and emerging market challenges. *Information Systems Frontiers*, 22(5), 1023–1041. <https://doi.org/10.1007/s10796-019-09926-4>
- Emon, M. M. H., Rahman, K. M., Nath, A., Fuad, M. N., Kabir, S. M. I., & Emee, A. F. (2025). Understanding User Adoption of Cybersecurity Practices through Awareness and Perception for Enhancing Network Security in Bangladesh. 2025 IEEE International Conference on Computing, Applications and Systems (COMPAS), 1–7.

- Dwivedi, R., Rana, N., & Alryalat, M. (2021). AI adoption in service industries: Emerging market insights. *Journal of Business Research*, 134, 211–228. <https://doi.org/10.1016/j.jbusres.2021.05.027>
- Luo, X., Li, H., Zhang, J., & Shim, J. P. (2022). Consumer acceptance of AI-enabled services in emerging economies. *Journal of Business Research*, 145, 708–719. <https://doi.org/10.1016/j.jbusres.2022.02.019>
- Dwivedi, Y., et al. (2021). Artificial intelligence: Multidisciplinary perspectives on opportunities and research agenda. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2020.102994>
- Gnewuch, U., Morana, S., & Maedche, A. (2017). Towards designing cooperative and social conversational agents for customer service. *ICIS 2017 Proceedings*.
- Park, E., Lee, H., & Kim, S. (2022). User acceptance of AI chatbots: Evidence from emerging markets. *Computers in Human Behavior*, 132, 107221. <https://doi.org/10.1016/j.chb.2021.107221>
- Shin, D., & Park, Y. J. (2021). Understanding consumer acceptance of AI-driven services in emerging markets. *Journal of Retailing and Consumer Services*, 59, 102368. <https://doi.org/10.1016/j.jretconser.2020.102368>
- Kshetri, N. (2021). AI adoption in emerging economies: Drivers, challenges, and strategies. *Information Systems Frontiers*, 23, 577–592. <https://doi.org/10.1007/s10796-020-10010-5>
- Kumar, V., & Reinartz, W. (2016). Creating enduring customer value. *Journal of Marketing*, 80(6), 36–68. <https://doi.org/10.1509/jm.15.0414>
- Liu, Y., Chen, Y., & Chou, H. (2021). Artificial intelligence in customer service: Chatbots and beyond. *Journal of Service Research*, 24(1), 3–24. <https://doi.org/10.1177/1094670520902268>
- Emon, M. M. H., Nath, A., Rahman, K. M., Islam, M. M.-U., Niloy, G. B., & Rifat, M. (2025). Examining the Determinants of Generative AI Utilization for SEO and Content Marketing: A TOE Approach in the Bangladeshi Digital Space. 2025 IEEE International Conference on Computing, Applications and Systems (COMPAS), 1–7.
- Adamopoulou, E., & Moussiades, L. (2020). An overview of chatbot technology. In *Artificial Intelligence Applications and Innovations* (pp. 373–383). Springer. [https://doi.org/10.1007/978-3-030-49186-4\\_31](https://doi.org/10.1007/978-3-030-49186-4_31)
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association for Information Systems*, 17(5), 328–376.
- Verma, P., et al. (2021). Chatbots in customer service: A study on emerging economies. *Journal of Business Research*, 133, 280–292. <https://doi.org/10.1016/j.jbusres.2021.04.050>
- World Bank. (2022). Digital adoption in emerging economies: Opportunities and challenges.
- Borges, S., Oliveira, T., & Cortinhas, C. (2022). Adoption of chatbots in customer service: Insights from emerging markets. *Information Systems Frontiers*, 24(3), 681–699.
- Chatterjee, S., Nguyen, B., Ghosh, S. K., Bhattacharjee, K. K., & Chaudhuri, S. (2021). Adoption of AI-based chatbots in service industries: Evidence from emerging markets. *Technological Forecasting and Social Change*, 170, 120859.
- Emon, M. M. H., Rahman, K. M., Nath, A., Islam, M. M.-U., Rifat, H. H., & Kutub, J. (2025). Exploring Drivers of Sustainable E-Commerce Adoption among SMEs in Bangladesh: A TOE Framework Approach for Industry 5.0 Transformation. 2025 7th International Conference on Sustainable Technologies for Industry 5.0 (STI), 1–6.
- Dangi, N., Arora, R., & Singh, P. (2020). Digital transformation in emerging economies: Opportunities and challenges. *Journal of Business Research*, 121, 57–66. <https://doi.org/10.1016/j.jbusres.2020.08.009>
- UNCTAD. (2020). Digital economy report 2020. United Nations Conference on Trade and Development.
- UNDP. (2021). Human development report 2021: Emerging markets and technology adoption. United Nations Development Programme.
- Hussain, M., et al. (2022). Technology adoption in emerging markets: Challenges and strategies. *Information Technology & People*, 35(5), 1420–1445. <https://doi.org/10.1108/ITP-10-2020-0724>
- Nguyen, T. H., Trivedi, R. H., Fukukawa, K., et al. (2025). Investigating drivers of customer experience with virtual conversational agents. *Information Systems Frontiers*, 27(10), 1871–1897. <https://doi.org/10.1007/s10796-024-10572-0>

- Emon, M. M. H., Nath, A., Rahman, K. M., Kutub, J., Rifat, H. H., & Islam, M. M.-U. (2025). Evaluating the Impact of AI Integration on Supply Chain Efficiency in E-Commerce Operations. 2025 7th International Conference on Sustainable Technologies for Industry 5.0 (STI), 1–6.
- Radanliev, P., De Roure, D., Walton, R., Maddox, L., & Cannady, S. (2021). Artificial intelligence in emerging economies: Risks and opportunities. *Technology in Society*, 66, 101628. <https://doi.org/10.1016/j.techsoc.2021.101628>
- Dwivedi, Y. K., Hughes, L., et al. (2021). Artificial intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2020.102994>
- Emon, M. M. H., Rahman, K. M., Islam, M. S., Nath, A., Kutub, J., & Santa, N. A. (2025). Determinants of Explainable AI Adoption in Customer Service Chatbots: Insights from the Telecom Sector of Bangladesh. 2025 7th International Conference on Sustainable Technologies for Industry 5.0 (STI), 1–6.
- Huang, M. H., & Rust, R. T. (2021). A strategic framework for artificial intelligence in marketing. *Journal of the Academy of Marketing Science*, 49, 30–50. <https://doi.org/10.1007/s11747-020-00749-9>
- Gnewuch, U., Morana, S., & Maedche, A. (2017). Towards designing cooperative and social conversational agents for customer service. *ICIS 2017 Proceedings*.
- Park, E., Lee, H., & Kim, S. (2022). User acceptance of AI chatbots: Evidence from emerging markets. *Computers in Human Behavior*, 132, 107221. <https://doi.org/10.1016/j.chb.2021.107221>

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