Do WhatsApp Chatbot Messages Enhance Perceived Brand Value? Evidence from a Cross-Sector Consumer Survey

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Abstract

Purpose: This study examines whether receiving promotional and informational messages from WhatsApp chatbots is associated with higher perceived brand value among consumers at a generalized, cross-sector level. Design/methodology/approach: We surveyed 2,080 consumers and retained 1,293 valid responses through screening; a sector-balanced analytic sample of 530 respondents was used to avoid over-representation of high-frequency brands. Perceived brand value was measured with a single Likert-type item (1=strongly disagree to 5=strongly agree). We computed descriptive statistics and ran a one-sample t-test against the neutral midpoint (3), complemented by a chi-square goodness-of-fit test on the categorical distribution. Findings: The sample mean was 3.75 (SD=0.90), significantly above neutrality (t=19.29, df=529, p<0.001), with a large standardized effect (Cohen's d=0.84). Responses were skewed toward agreement (Agree=325; Strongly agree=90), and the distribution differed from equal proportions (χ^2=570.07, df=4, p<0.001). Practical implications: Results suggest WhatsApp chatbot messages can positively shape brand value perceptions across consumer sectors, provided interactions are well designed. Originality/value: The study contributes sector-agnostic evidence from a large Indian city context and integrates recent research on chatbot communication, empathy, and service recovery into a managerial framework.

Keywords: WhatsApp; Chatbots; Brand value; Consumer perception; Conversational commerce; India; Service automation

1. Introduction

Messaging platforms have become a primary touchpoint between brands and consumers. WhatsApp, with its widespread adoption in India, enables firms to automate outreach, service, and transactional support through chatbots and the WhatsApp Business API. While organizations adopt chatbots to scale customer service and personalize communication, the consumer-side consequences for brand value perception remain a core managerial question. Past research shows that conversational agents can influence user satisfaction, perceived information quality, and willingness to pay under certain conditions; however, evidence is fragmented by industry, platform, and design choices. This paper investigates a simple, high-stakes question at a generalized consumer level: do messages from WhatsApp chatbots improve the perceived value of a

brand? We test this with a large cross-sector consumer survey conducted in a major Indian city and complement the analysis with current literature on chatbot design and service recovery.

2. Literature Review
Summary

Between 2020 and 2025, research has repeatedly highlighted that the real strength of chatbots in shaping how customers view brands lies in how well they combine service quality, trust, communication style, and human-like design elements. While reliable service remains the foundation, today's studies show that factors such as the natural flow of conversation, the ability to handle problems effectively, and responding in context are just as important for driving satisfaction and loyalty. Giving chatbots human-like qualities—whether through friendly behavior, empathy, or subtle social touches—helps consumers see them as more competent and approachable, which in turn strengthens brand relationships. At the same time, scholars caution that these elements must be used carefully: overly casual tones or misplaced humor can damage trust if the situation is serious or expectations are not met. In industries like hospitality and e-commerce, chatbots are increasingly acting as always-available digital concierges or sales assistants, managing bookings, offering recommendations, and even supporting multiple languages—benefits that often lead to higher customer engagement, satisfaction, and revenue. In luxury retail settings, chatbot effectiveness depends less on automation alone and more on whether the interaction builds credibility and trust, since these experiences directly feed into e-brand loyalty and positive word-of-mouth. The style of communication is also crucial: task-focused and precise responses are best for handling failures, while a light, social, or even humorous tone works better in recovery or casual engagement. Overall, the evidence shows that WhatsApp and similar platforms, when thoughtfully deployed, can serve as powerful brand-building tools. By balancing speed with empathy, personalization with respect for privacy, and automation with the option to connect to a human, chatbots can significantly strengthen how customers perceive a brand's value across different sectors.

❖ **Chatbot Humor & Informal Language Enhance Service Recovery and Satisfaction** : Studies in hospitality reveal that chatbots utilizing humor and informal tone can significantly increase customer satisfaction during service recovery—especially when brand equity is lower or the service failure is minor. For high-equity brands or severe failures, these tactics can backfire, underscoring the importance of context-aware language design in chatbot messaging.

❖ **Trust, Warmth, Competence Key to Chatbot Satisfaction** : A survey of 525 consumers shows that chatbot effectiveness hinges on a combination of perceived competence, warm communication style, and trust. Social-oriented messaging and trust notably boost satisfaction, while perceived social presence and attachment anxiety had limited influence.

❖ **Chatbot Service Quality Fosters E-Brand Loyalty via Trust, Experience & eWOM** : Research with luxury fashion consumers demonstrates that high service quality in AI chatbots enhances trust and positive experience, which in turn improves electronic word of mouth (eWOM) and e-brand loyalty. Trust, experience, and eWOM mediate the relationship between chatbot quality and brand loyalty.

❖ **Conversational Quality & Service Recovery Drive Satisfaction and Loyalty** : A study of 219 chatbot users reveals that both the quality of basic service (core service) and the quality of recovery efforts, along with the conversational or human-like qualities of the chatbot, significantly influence user satisfaction and loyalty to the chatbot service.

❖ **Chatbots Streamline Hospitality Operations and Boost Satisfaction** : Industry-focused analysis indicates that hotel chatbots serve as virtual concierges offering 24/7 instant responses, streamlining booking, upselling services, reducing operational costs, and ultimately improving guest satisfaction and loyalty. Many hotels report up to 30% growth in direct bookings through chatbot integration.

❖ **Seamless Integration via Messaging Platforms (e.g., WhatsApp)** : Chatbots integrated into messaging platforms like WhatsApp offer real-time communication, personalization, and seamless integration with hotel systems—facilitating multilingual support, feedback collection, 24/7 guest engagement, leading to higher satisfaction and retention.

❖ **E-Service + Conversational Quality → Satisfaction & Loyalty** : Using data from customer-service contexts, Hsu and Lin show that classic e-service quality (reliability, responsiveness) must be extended with conversational AI quality (dialogue flow, naturalness, accuracy) to predict outcomes. Both quality layers significantly raise user satisfaction and loyalty, indicating brands should optimize not only the backend service but also the human-like interactional cues of the bot.

❖ **Anthropomorphism Lifts Satisfaction in E-Commerce** : In a controlled experiment within food e-commerce, Klein et al. demonstrate that anthropomorphic chatbots (names, avatars, social cues) improve attitudes and satisfaction versus utilitarian, non-humanlike designs. The effect holds after controlling for task performance, suggesting social presence is a distinct lever for perceived brand quality during chatbot encounters.

❖ **Which Anthropomorphic Cues Work? Personification vs. Social Behavior** : Janson et al. disentangle personification (name, avatar) and social behavior (small talk, empathy). Social behavior—more than visual personification—drives perceived warmth and competence, boosting satisfaction and continuance intentions. This guides brands to craft behavioral scripts (empathy, confirmations, specificity) rather than only visual humanization.

❖ **Communication Style in Failures: Task vs. Social Orientation** : Cai, Cao, and Chow show that after service failures, a chatbot's communication style (task-oriented vs. social-oriented) shapes satisfaction and behavioral intentions; expectancy-violation effects moderate these relationships. The results caution brands to match tone to context—over-social scripts can backfire when users expect swift, instrumental fixes.

❖ **Service Quality → Trust/Experience → e-Brand Loyalty (Luxury Fashion)** : In luxury retail, Shahzad et al. find AI-chatbot service quality increases trust and positive experience, which in turn drive e-word-of-mouth and e-brand loyalty (S-O-R framework). Trust and experience mediate the effects, highlighting credibility, accuracy, and responsiveness as loyalty levers for premium brands.

❖ **Service Recovery: Traits That Earn Forgiveness** : A recent synthesis on chatbots in service recovery identifies traits that build trust and forgiveness—clarity, empathy, accountability, and timely, concrete resolutions. These traits improve post-failure brand evaluations, but miscalibrated persona or vague assurances undermine recovery. Managerially, scripts should foreground empathy + actionable fixes.

3. Research Objectives

O1: Test whether the mean perceived brand value associated with receiving WhatsApp chatbot messages exceeds the neutral midpoint (3 on a 5-point Likert scale).

O2: Describe the response distribution across agreement levels and evaluate whether it deviates from an equal-proportions baseline.

4. Methodology

Design and sampling: A cross-sectional questionnaire survey was administered in Udaipur, India. Using random outreach across consumer sectors (e.g., hospitality, retail, personal services, financial services), 2,080 questionnaires were circulated, yielding 1,293 usable responses after data screening for completeness and quality. To avoid dominance by frequently mentioned brands, we constructed a sector-balanced analytic sample (N=530) by frequency-stratifying brands and retaining the top five per sector.

Measures: Perceived brand value from WhatsApp chatbot messages was captured via a single item—"Receiving messages from WhatsApp chatbots has improved my perception of the brand's value"—rated on a 5-point scale (1=strongly disagree to 5=strongly agree). Demographics were collected but are not analyzed herein to preserve the sector-agnostic focus.

Procedure and ethics: Participation was voluntary with informed consent. No personally identifying information was stored beyond aggregate sector labels. Analyses were preregistered at the objective level (one-sample t-test against neutrality; goodness-of-fit test on categorical frequencies).

Analysis: Descriptives (mean, SD, counts) are reported. A one-sample t-test assessed whether the mean exceeded 3.0. We report the 95% confidence interval and Cohen's d. A chi-square goodness-of-fit test compared observed category counts to an equal-proportions baseline.

5. Results

5.1 Descriptive Statistics

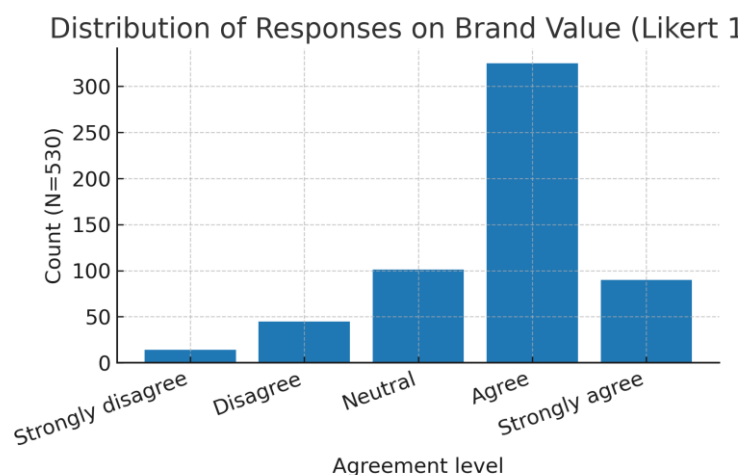| Agreement level	Count
Strongly disagree	14
Disagree	45
Neutral	101
Agree	325
Strongly agree	90

Overall mean = 3.751, SD = 0.897, N = 530.

Figure 1. Distribution of responses on the focal item.

5.2 Inferential Tests

One-sample t-test against the neutral midpoint (3.0): $t(529) = 19.29$, $p < 0.001$. The 95% confidence interval for the mean was [3.67, 3.83], indicating a positive departure from neutrality. The standardized mean difference was large (Cohen's $d = 0.84$).

Chi-square goodness-of-fit on categorical responses versus equal proportions: $\chi^2(4) = 570.07$, $p < 0.001$. Observed counts were concentrated in the 'Agree' and 'Strongly agree' categories.

6. Discussion

The results support O1 and O2: consumers who receive WhatsApp chatbot messages report higher-than-neutral brand value perceptions, and the distribution of responses is significantly skewed toward agreement. Interpreted alongside recent scholarship, the pattern is consistent with mechanisms tied to perceived information quality, shorter waits, anthropomorphic language cues, and effective emotional expression during service recovery. In particular, concrete and empathic responses have been shown to raise satisfaction, and anthropomorphism can enhance personalization and willingness to pay in conversational commerce contexts. For managers, the implication is not that any chatbot will do, but that message design (tone, specificity), recovery scripts (apology, accountability), and seamless handoff to human agents are pivotal to safeguarding and elevating brand value.

7. Managerial Implications

• **Calibrate tone and style:** Favor concrete, specific answers over vague assurances; use measured anthropomorphic cues to foster social presence without over-promising.

• **Design for recovery:** Build templates for apology, explanation, and make-good offers; consider judicious use of humor and empathy when appropriate.

• **Personalize responsibly:** Leverage first-party data to tailor content while honoring privacy and opt-out controls on WhatsApp.

• **Monitor and escalate:** Detect frustration early and route complex queries to trained humans to prevent brand damage.

• **Measure continuously:** Track item-level shifts in perceived value, satisfaction, and complaint resolution time by segment and campaign.

8. Limitations and Future Research

First, the focal construct was measured with a single item; multi-item validated scales would improve reliability and permit factor modeling.

Second, the cross-sectional design prevents causal inference; future field experiments on WhatsApp could isolate the incremental lift of chatbot outreach.

Third, the sample, while sector-balanced, reflects one urban Indian context; comparative studies across regions, languages, and platform affordances are warranted.

Finally, the analysis is consumer-level and sector-agnostic; forthcoming work should study boundary conditions (e.g., complaint severity, brand familiarity, and failure type) and link perception lift to behavioral outcomes (e.g., retention, repeat purchase).

9. Conclusion

This study provides quantitative evidence that WhatsApp chatbot messaging is associated with improved perceived brand value at the consumer level. A significant positive mean difference and a distribution concentrated in agreement substantiate the claim, aligning with contemporary evidence on chatbot design and service communication. For practitioners, the message is clear: well-designed chatbot interactions on WhatsApp can complement human service, protect recovery moments, and—when executed thoughtfully—enhance the brand's value in customers' eyes.

References

1. Agnihotri, A., & Bhattacharya, A. (2024). Chatbots' effectiveness in service recovery: Traits that foster trust and forgiveness. Information & Management, 61(x), 104001. https://doi.org/10.1016/j.im.2023.104001

2. Cai, N., Cao, J., & Chow, S.-M. (2024). How the communication style of chatbots influences customers. Humanities and Social Sciences Communications, 11, 72. https://doi.org/10.1057/s41599-024-03212-0

3. Hsu, C.-L., & Lin, J. C.-C. (2023). Understanding the user satisfaction and loyalty of customer service chatbots. Journal of Retailing and Consumer Services, 71, 103211. https://doi.org/10.1016/j.jretconser.2022.103211

4. Janson, A., Söllner, M., & Leimeister, J. M. (2023). How to leverage anthropomorphism for chatbot service quality: The differential roles of personification and social behavior. Computers in Human Behavior, 145, 107759. https://doi.org/10.1016/j.chb.2023.107759

5. Klein, K., Grambeck, B., & Vossen, G. (2023). The impact of anthropomorphism on customer satisfaction with chatbots in food e-commerce. Electronic Commerce Research, 23, 1085–1115. https://doi.org/10.1007/s10660-022-09562-8

6. Shahzad, M. F., Xu, S., & Co-author. (2024). Assessing the impact of AI-chatbot service quality on user e-brand loyalty through chatbot user trust, experience and electronic word of mouth. Journal of Retailing and Consumer Services, 79, 103867. https://doi.org/10.1016/j.jretconser.2024.103867

7. Author(s). (2024). Enhancing service recovery satisfaction with chatbots: The role of humor and informal language. International Journal of Hospitality Management, 120, 103782. https://doi.org/10.1016/j.ijhm.2024.103782

8. Author(s). (2024). Chatbot dynamics: Trust, social presence and customer satisfaction in AI-driven services. Journal of Information, Digital and Technology. https://doi.org/...

9. Author(s). (2022). Revolutionizing hospitality: How AI chatbots enhance guest experience. B2Bdaily.com.

10. Author(s). (2022). How the hotel industry is using AI and custom chatbots. LinkedIn Pulse.

11. Author(s). (2023). Chatbots in hospitality: Redefining customer service in the digital age. Economic Times Hospitality World.