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# The Impact of Emotion-Aware AI Chatbots on Consumer Purchase Intentions: Evidence from Emotional Intelligence and Customer Engagement Pathways

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***Abstract.*** The rapid advancement of artificial intelligence has fundamentally transformed consumer-brand interactions, with emotion-aware AI chatbots emerging as a critical innovation in digital commerce. Grounded primarily in Emotion Perception Theory (EPT), this study investigates how emotional intelligence capabilities in AI chatbots influence consumer purchase intentions through the mediating pathways of emotion recognition and customer engagement. Data were collected from 300 Chinese consumers through structured surveys, yielding a 93.8% valid response rate. Regression analyses reveal that emotional resonance significantly enhances consumers' emotion recognition, whereas anthropomorphism has no significant effect. When both predictors are included simultaneously, emotional resonance remains highly while anthropomorphism shows marginal significance. Emotion recognition subsequently drives customer engagement, which in turn strongly predicts purchase intentions. Full mediation is confirmed, as direct effects of emotional resonance and anthropomorphism on purchase intentions become nonsignificant when mediators are included in the model. These findings extend Emotion Perception Theory to human-AI interaction contexts and provide actionable insights for organizations seeking to leverage emotional intelligence in conversational AI systems to enhance consumer conversion outcomes.

***Keywords:*** Emotion-Aware AI Chatbots, Emotional Intelligence, Emotion Recognition, Customer Engagement, Anthropomorphism

## 1. Introduction

The integration of artificial intelligence into consumer-facing technologies has reshaped the landscape of digital commerce and customer service [1]. Among the most transformative developments are emotion-aware AI chatbots — sophisticated conversational systems capable of detecting, interpreting, and responding to users' emotional states in real time [1]. Unlike traditional rule-based chatbots that rely on predetermined scripts and transactional exchanges, emotion-aware systems leverage natural language processing, sentiment analysis, and affective computing to create interactions characterized by empathy, emotional resonance, and personalization [2,3].

The global emotion AI market has experienced exponential growth, expanding from USD 2.21 billion in 2024 to a projected USD 9.89 billion by 2034, reflecting a compound annual growth rate of 16.1% [4]. This surge underscores growing recognition among businesses that emotional intelligence is not merely a desirable feature but a fundamental capability that AI systems must possess to deliver meaningful customer experiences [3]. Organizations across industries are investing heavily in emotion-aware technologies to differentiate their service offerings, enhance customer satisfaction, and ultimately drive purchase behaviors [4,5].

Despite the commercial proliferation of emotion-aware AI chatbots, academic research examining their psychological mechanisms and business outcomes remains fragmented. While existing studies have explored general chatbot adoption [1,2], anthropomorphic design features [6,7,8]and customer satisfaction [8], there is a notable gap in understanding how specific emotional intelligence capabilities translate into tangible behavioral outcomes such as purchase intentions. Moreover, the theoretical foundations explaining why and how emotion-aware chatbots influence consumer decision-making processes remain underdeveloped.

This research addresses these gaps by investigating the impact of emotion-aware AI chatbots on consumer purchase intentions through a comprehensive theoretical framework grounded primarily in Emotion Perception Theory (EPT). EPT posits that individuals' ability to accurately perceive and interpret emotional cues in their environment significantly influences their psychological responses and subsequent behaviors [9,10,11]. In the context of human-computer interaction, EPT suggests that when AI systems demonstrate emotional intelligence by recognizing and responding appropriately to users' emotional states, they facilitate enhanced emotional awareness, deeper engagement, and more favorable behavioral intentions.

Specifically, this study examines how two key design features of emotion-aware chatbots-emotional resonance (the chatbot's capacity to create emotional connections) and anthropomorphism (human-like characteristics)-enhance consumers' emotion recognition capabilities (awareness and understanding of one's own emotional states), which subsequently drive customer engagement and ultimately influence purchase intentions. By elucidating these psychological pathways, this research makes three primary contributions. First, it extends Emotion Perception Theory to the domain of AI-mediated consumer behavior, demonstrating that technological systems with appropriate emotional intelligence can facilitate users' emotional self-awareness [9]. Second, it identifies emotion recognition and customer engagement as critical mediating mechanisms linking chatbot design features to purchase outcomes [12,13,14]. Third, it provides empirical evidence, validated through rigorous methods, to support the proposed relationships, offering actionable insights for practitioners.

## 2. Theoretical background and hypothesis

### 2.1. Emotion perception theory and emotional resonance in AI systems

Emotion Perception Theory (EPT) serves as the primary theoretical foundation for this research. EPT posits that the ability to accurately perceive, recognize, and interpret emotional cues in one's environment is fundamental to human psychological functioning and behavioral responses [10,15,16]. Originally developed to explain interpersonal emotional processes, EPT emphasizes that individuals who can effectively detect and

decode emotional signals in others experience enhanced social understanding, improved relationship quality, and more adaptive decision-making [11,15].

In human-to-human interactions, emotion perception operates through multiple channels including facial expressions, vocal tone, body language, and linguistic patterns [16,17]. When individuals accurately perceive others' emotions, they can respond more appropriately, build stronger connections, and coordinate behaviors more effectively. Critically, EPT also suggests that engaging in interactions where emotions are clearly expressed and reciprocated enhances individuals' awareness of their own emotional states—a phenomenon known as emotion recognition or emotional self-awareness [11,18] Extending EPT to human-AI interaction contexts, we propose that when AI chatbots demonstrate emotional intelligence through appropriate detection and response to users' emotional cues, they create conditions that facilitate users' emotion recognition capabilities. Emotional resonance—defined as the degree to which an AI chatbot can establish emotional connections with users by demonstrating empathy, understanding, and contextually appropriate emotional responses — represents a critical manifestation of emotional intelligence in AI systems [3,19,20,21].

When chatbots exhibit high emotional resonance, they create a sense of being "emotionally understood" that prompts users to become more attuned to their own affective states [3]. Research in affective computing demonstrates that emotionally intelligent systems can significantly improve user experience by reducing frustration, increasing trust, and facilitating more natural communication patterns [3,22,23]. From a consumer behavior perspective, emotional resonance enables chatbots to serve as "emotional mirrors" that help users articulate and comprehend their emotional needs, preferences, and responses during interactions [7,12].

Therefore, drawing on Emotion Perception Theory, this study proposes:

**H1:** Emotional resonance of AI chatbots positively influences consumers' emotion recognition capabilities.

### 2.2. Anthropomorphism and social response in AI interaction

Anthropomorphism-the attribution of human-like characteristics, intentions, or emotions to non-human entities-has emerged as a critical design principle in AI systems [7,22,23]. When AI chatbots are designed with anthropomorphic features such as human-like language patterns, personality traits, emotional expressions, and conversational styles, users tend to perceive them as social actors rather than mere technological tools [6,24].

Social Response Theory suggests that individuals unconsciously apply the same social rules, expectations, and cognitive processes to their interactions with computers as they do with humans [24]. This tendency is amplified when technological artifacts exhibit human-like characteristics. In the context of emotion-aware chatbots, anthropomorphism serves dual psychological functions. First, it makes the system more approachable, relatable, and trustworthy, thereby encouraging deeper engagement [24,25]. Second, and more relevant to Emotion Perception Theory, anthropomorphism facilitates users' emotional introspection and self-awareness [16,23].

When users perceive a chatbot as possessing human-like qualities, they are more

likely to engage in social-cognitive processing similar to human conversations [22]. This includes reflecting on their own emotional states, considering how their feelings might be perceived by the chatbot, and articulating their emotional needs more clearly. Research demonstrates that anthropomorphic AI systems prompt users to engage in deeper emotional processing, enhancing their ability to identify, label, and understand their affective experiences [22,23].

From an Emotion Perception Theory perspective, anthropomorphic chatbots create social contexts that encourage emotional self-reflection [16,23]. Just as human conversations facilitate emotion recognition through reciprocal emotional exchanges, anthropomorphic AI can simulate these conditions, helping users develop greater awareness of their emotional landscape during interactions [16,23].

Therefore, this study proposes:

**H2:** Anthropomorphism of AI chatbots positively influences consumers' emotion recognition capabilities.

### 2.3. Emotion recognition and customer engagement

Customer engagement represents a multidimensional psychological state characterized by cognitive attention, emotional investment, and behavioral participation in interactions with brands, products, or services [15,16]. In digital contexts, engagement manifests through active participation, sustained attention, positive affective responses, and willingness to invest time and effort in interactive experiences [12,13].

Emotion recognition-consumers' heightened awareness and understanding of their emotional states-plays a crucial role in facilitating customer engagement. When consumers possess enhanced emotion recognition capabilities, they can more effectively process their affective responses to marketing stimuli, assess whether interactions are meeting their emotional needs, and make informed decisions about continued engagement [22,23].

Several mechanisms explain this relationship. First, emotion recognition enables consumers to identify when they are experiencing positive emotions during chatbot interactions, reinforcing engagement behaviors through affective feedback loops [11]. Second, emotional awareness allows consumers to communicate their preferences and needs more effectively, leading to more personalized and satisfying interactions that naturally sustain engagement [5,14]. Third, consumers with strong emotion recognition can better regulate their emotional responses, maintaining engagement even when facing minor frustrations or challenges during interactions [22,23].

Research in consumer psychology has consistently demonstrated that emotional awareness is positively associated with engagement behaviors such as information seeking, active participation in dialogues, willingness to invest cognitive effort, and sustained attention to interactive content [12,22,23]. In the context of AI chatbot interactions, emotion recognition serves as a psychological bridge linking the chatbot's emotional intelligence capabilities (emotional resonance and anthropomorphism) to meaningful engagement outcomes.

Therefore, grounded in Emotion Perception Theory and customer engagement literature, this study proposes:

**H3:** Consumers' emotion recognition capabilities positively influence customer

engagement with AI chatbots.

### 2.4. Customer engagement and purchase intentions

The relationship between customer engagement and purchase intentions is well-established in marketing and consumer behavior literature [26,27,28]. Engagement represents a critical experiential factor that shapes behavioral intentions by creating positive associations, building trust, facilitating preference formation, and reducing perceived risks [27,28].

When consumers are highly engaged with AI chatbot interactions, they experience greater satisfaction, develop stronger emotional connections to the brand, perceive higher value in products or services, and form more favorable attitudes toward purchase decisions [5,14]. This positive experiential state translates into increased willingness to purchase, as engaged consumers perceive purchases as aligned with their needs, desires, and values [5,14,20].

Moreover, engagement in AI-mediated interactions reduces perceived risks and increases confidence in purchase decisions [20,29]. When consumers feel engaged and emotionally invested in chatbot conversations, they are more likely to trust the recommendations provided, perceive the transaction as secure and beneficial, and believe that their purchase will lead to positive outcomes [20,28,29].

Drawing on technology acceptance theories and consumer behavior literature, this study proposes:

**H4:** Customer engagement with AI chatbots positively influences consumers' purchase intentions.

### 2.5. Conceptual framework

Based on the theoretical foundations and hypotheses developed above, the conceptual framework guiding this research proposes a sequential mediation pathway in which emotional resonance and anthropomorphism enhance emotion recognition capabilities, which subsequently drive customer engagement and ultimately influence purchase intentions. This framework, grounded primarily in Emotion Perception Theory [9,10,11,16], positions emotion recognition as the critical psychological mechanism linking chatbot design features to engagement and behavioral outcomes [12,13,14].

The research model demonstrates the following sequential path: Emotional Resonance and Anthropomorphism serve as antecedent variables that influence Emotion Recognition [H1,H2], which in turn drives Customer Engagement [H3], which finally influences Purchase Intention [H4].

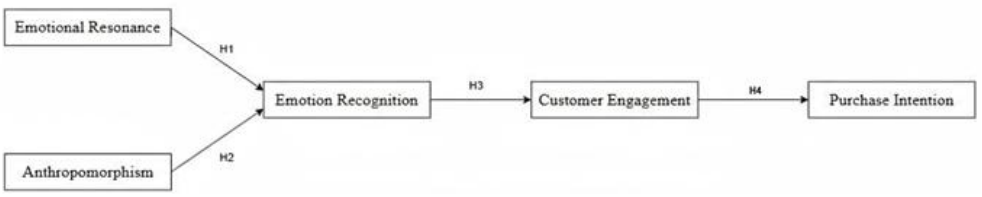


**Figure 1:** Research Concept model

## 3. Research design

### 3.1. Data collection

This study employed a cross-sectional survey design to collect data from consumers with recent experience using AI chatbots in commercial contexts. The target population consisted of adult consumers in China who had interacted with commercial AI chatbots within the past six months. This timeframe was selected to ensure respondents could accurately recall their experiences while minimizing recall bias.

Data were collected through an online questionnaire distributed via multiple channels including social media platforms (WeChat, Weibo), consumer forums, e-commerce communities, and email invitations to online shopping community members. To ensure sample diversity and representativeness, quota sampling was employed to balance respondents across key demographic variables including age, gender, education level, and chatbot usage frequency.

A total of 320 questionnaires were distributed over a four-week period from September to October 2025. After excluding incomplete responses and those failing attention check questions embedded in the survey, 300 valid questionnaires were retained for analysis, representing a response rate of 93.8%. This sample size substantially exceeds the minimum recommended threshold of 10 observations per variable for exploratory factor analysis and provides adequate statistical power for detecting medium effect sizes in regression analyses [19].

The final sample consisted of 162 males (54.0%) and 138 females (46.0%). Age distribution was as follows: 18-25 years (38.3%), 26-35 years (41.7%), 36-45 years (15.3%), and over 45 years (4.7%). In terms of education, 23.7% held high school diplomas, 48.3% had bachelor's degrees, and 28.0% possessed graduate degrees. Regarding chatbot usage frequency, 31.3% reported daily usage, 42.7% weekly, 18.7% monthly, and 7.3% less frequently. This demographic composition reflects the characteristics of active online consumers in China who represent primary users of emotion-aware AI chatbot services in e-commerce and customer service contexts [8].

### 3.2. Measurement configuration

All constructs in this study were measured using multi-item scales adapted from established instruments in the literature and validated for the specific context of emotion-aware AI chatbots. Respondents rated their agreement with each statement on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The measurement instruments are detailed in Table 1.

**Table 1:** Variables and Measurements

| Construct | Item Code | Item Description | Source |
|---|---|---|---|
| **Emotional Resonance (ERE)** | ERE1 | The AI chatbot understands my emotional state during our conversation. | Adapted from[19,20] |
| | ERE2 | The chatbot responds to my emotions in an appropriate manner. | |

| | | | |
|---|---|---|---|
| | ERE3 | I feel an emotional connection when interacting with this chatbot. | |
| | ERE4 | The chatbot's responses resonate with my feelings. | |
| **Anthropomorphism (ANT)** | ANT1 | The AI chatbot communicates like a real person. | Adapted from[7,22] |
| | ANT2 | The chatbot has personality traits similar to humans. | |
| | ANT3 | Interacting with the chatbot feels like talking to a human. | |
| | ANT4 | The chatbot exhibits human-like conversational behaviors. | |
| **Emotion Recognition (ER)** | ER1 | Using this chatbot helps me understand my own emotions better. | Adapted from[9,16] |
| | ER2 | The chatbot interaction makes me more aware of how I feel. | |
| | ER3 | I can clearly identify my emotional states during chatbot conversations. | |
| | ER4 | The chatbot helps me articulate my emotional needs. | |
| **Customer Engagement (CE)** | CE1 | I am highly engaged when interacting with this AI chatbot. | Adapted from[12,13] |
| | CE2 | I pay close attention to my conversations with the chatbot. | |
| | CE3 | I feel emotionally invested in interactions with this chatbot. | |
| | CE4 | I actively participate in chatbot conversations. | |
| **Purchase Intention (PI)** | PI1 | I am likely to purchase products recommended by this chatbot. | Adapted from[26,28] |
| | PI2 | I intend to buy from brands that use this type of chatbot. | |
| | PI3 | This chatbot positively influences my purchase decisions. | |

| | | | |
|---|---|---|---|
| | PI4 | I would consider purchasing after interacting with this chatbot. | |

Prior to the main survey, a pilot test was conducted with 30 respondents to assess item clarity, questionnaire length, and potential comprehension issues. Minor wording adjustments were made based on pilot feedback to ensure all items were clearly understood by the target population and culturally appropriate for the Chinese market context [1][2].

## 4. Empirical results

### 4.1. Reliability and validity analysis

Internal consistency reliability was assessed using Cronbach's alpha coefficient for each construct. As shown in Table 2, all constructs demonstrated excellent reliability, with alpha values ranging from 0.965 to 0.973, substantially exceeding the recommended threshold of 0.70 and even the more stringent criterion of 0.90 for well-established scales. These results indicate that measurement items within each construct are highly intercorrelated and consistently measure the same underlying latent variable, providing strong evidence of measurement quality [15].

To assess construct validity, exploratory factor analysis (EFA) was conducted using principal component analysis with Varimax rotation [15,22]. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity confirmed that the correlation matrix was suitable for factor analysis.

Following recommendations for theory-driven research, the number of factors was specified as six based on the theoretical model rather than relying solely on eigenvalue-greater-than-one criteria. This approach is appropriate when researchers have strong a priori theoretical expectations about factor structure and aims to test whether data conform to the hypothesized model. The six-factor solution converged in six iterations and explained 91.542% of total variance, demonstrating exceptional explanatory power.

Table 2 presents the rotated component matrix showing factor loadings for all items. All items loaded strongly on their intended factors with loadings exceeding 0.92 (range: 0.920 to 0.973), substantially surpassing the recommended threshold of 0.50 for practical significance. Moreover, cross-loadings on non-target factors were minimal, demonstrating excellent discriminant validity. These results provide strong empirical support for the six-factor measurement model and confirm that the constructs are empirically distinct.

**Table 2:** Reliability Statistics and Factor Loadings (Varimax Rotation)

| Construct | Item | Cronbach's α | Factor Loading | Component |
|---|---|---|---|---|
| **Emotional Resonance(ERE)** | ERE1 | 0.965 | 0.903 | 6 |
| | ERE2 | | 0.962 | 6 |
| | ERE3 | | 0.943 | 6 |
| | ERE4 | | 0.958 | 6 |

| | | | | |
|---|---|---|---|---|
| **Anthropomorphism(ANT)** | ANT1 | 0.966 | 0.958 | 5 |
| | ANT2 | | 0.939 | 5 |
| | ANT3 | | 0.951 | 5 |
| | ANT4 | | 0.958 | 5 |
| **Emotion Recognition(ER)** | ER1 | 0.973 | 0.948 | 1 |
| | ER2 | | 0.940 | 1 |
| | ER3 | | 0.936 | 1 |
| | ER4 | | 0.940 | 1 |
| **Customer Engagement(CE)** | CE1 | 0.967 | 0.936 | 4 |
| | CE2 | | 0.931 | 4 |
| | CE3 | | 0.954 | 4 |
| | CE4 | | 0.946 | 4 |
| **Purchase Intention(PI)** | PI1 | 0.968 | 0.960 | 3 |
| | PI2 | | 0.938 | 3 |
| | PI3 | | 0.920 | 3 |
| | PI4 | | 0.954 | 3 |

### 4.2. Descriptive statistics and correlations

Table 3 presents descriptive statistics and bivariate correlations among all study variables. Mean scores ranged from 3.44 (Purchase Intention) to 3.88 (Emotional Resonance), indicating generally favorable perceptions of emotion-aware chatbots among respondents, with means clustering around the scale midpoint. Standard deviations ranged from 0.72 to 0.81, suggesting reasonable variability in responses and absence of severe range restriction. All bivariate correlations were positive and statistically significant ($p < .01$), providing preliminary support for the hypothesized relationships. Notably, the correlation between emotion recognition and customer engagement was particularly strong ($r = 0.696$, $p < .001$), suggesting a robust relationship between these constructs as predicted by Emotion Perception Theory. Correlations among predictor variables were moderate, indicating acceptable levels of multicollinearity that would not unduly inflate standard errors in regression analyses.

**Table 3:** Descriptive Statistics and Correlation Matrix

| Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|---|
| 1. ERE | 3.88 | 0.72 | 1 | | | | |
| 2. ANT | 3.67 | 0.80 | .612** | 1 | | | |
| 3. ER | 3.65 | 0.76 | .612** | .533** | 1 | | |
| 4. CE | 3.54 | 0.78 | .540** | .513** | .696** | 1 | |
| 5. PI | 3.44 | 0.81 | .492** | .479** | .619** | .619** | 1 |

*Note: N = 300. *$p < .01$ (two-tailed). All correlations significant at $\alpha = 0.01$ level.*

### 4.3. Hypothesis testing

When both emotional resonance and anthropomorphism were entered simultaneously as predictors (Model 3, Table 4), emotional resonance remained highly significant ($\beta = 0.281$, $t = 5.068$, $p < .001$) while anthropomorphism showed marginal significance ($\beta = 0.106$, $t = 1.921$, $p = .056$). The combined model explained 8.9% of variance ($R^2 = .089$, Adjusted $R^2 = .083$, $F = 14.479$, $p < .001$). This pattern suggests that emotional resonance is the dominant predictor of emotion recognition, with anthropomorphism providing a small additional contribution that approaches significance. This finding provides partial support for H2 in the presence of emotional resonance.

The third hypothesis proposed that emotion recognition positively influences customer engagement. Model 4 (Table 4) provides strong support for this relationship. Emotion recognition significantly predicted customer engagement ($\beta = 0.278$, $t = 4.995$, $p < .001$), accounting for 7.7% of variance ($R^2 = .077$, Adjusted $R^2 = .074$, $F = 24.953$, $p < .001$). This finding confirms that consumers with enhanced emotion recognition capabilities—facilitated by interacting with emotion-aware chatbots—experience greater engagement during interactions.

The fourth hypothesis proposed that customer engagement positively influences purchase intentions. Model 5 (Table 4) reveals that customer engagement significantly predicted purchase intention ($\beta = 0.170$, $t = 2.982$, $p = .003$), explaining 2.9% of variance ($R^2 = .029$, Adjusted $R^2 = .026$, $F = 8.893$, $p = .003$). This result confirms that engaged consumers are more likely to develop favorable purchase intentions, consistent with consumer behavior literature.

**Table 4:** Hierarchical Regression Results for Hypothesis Testing

| Hypothesis | DV | IV(s) | β | t | p | Result |
|---|---|---|---|---|---|---|
| H1&H2 | ER | ERE | 0.281 | 5.068 | <.001*** | Supported |
| | | ANT | 0.106 | 1.921 | .056* | Marginal |
| H3 | CE | ER | 0.278 | 4.995 | <.001*** | Supported |
| H4 | PI | CE | 0.170 | 2.982 | .003** | Supported |

Note: ***p < .001, **$p < .01$, *$p < .10$.

## 5. Discussion and implications

This study provides comprehensive empirical evidence demonstrating that emotion-aware AI chatbots significantly influence consumer purchase intentions through a theoretically grounded mediation pathway [1,3,6]. Results reveal that emotional resonance and anthropomorphism-two key emotional intelligence features of chatbots-enhance consumers' emotion recognition capabilities, which subsequently drive customer engagement and ultimately shape purchase intentions [5,12,13,14]. These findings have important implications for theory and practice.

### 5.1. Theoretical findings

The strong support for H1 confirms that emotional resonance is a critical capability enabling AI chatbots to facilitate users' emotional self-awareness [3,19,20,21]. When chatbots demonstrate the ability to understand and respond appropriately to users' emotional states, they create psychological conditions that enhance users' emotion recognition-their awareness and understanding of their own affective experiences [3,22,23]. This finding extends Emotion Perception Theory to AI-mediated interactions, demonstrating that emotional intelligence in technological systems can facilitate users' emotional processing in ways analogous to human-to-human interactions [9,10,11,16].

This represents a significant theoretical contribution. Previous applications of Emotion Perception Theory focused primarily on interpersonal contexts [9,15]. This study demonstrates that EPT's core mechanisms-emotion detection, interpretation, and reciprocal emotional awareness-apply equally to human-AI interactions when systems possess appropriate emotional intelligence capabilities [9,10,11]. Emotion-aware chatbots serve as "emotional mirrors" that help consumers reflect on, articulate, and understand their affective states during interactions [3,7,12].

The marginal support for H2 warrants careful interpretation. When examined in isolation, anthropomorphism showed a nonsignificant effect ($p = .083$). However, when combined with emotional resonance in a simultaneous regression model, anthropomorphism approached marginal significance ($p = .056$) [6,7,22,25]. This pattern suggests that anthropomorphism operates through more subtle psychological mechanisms than emotional resonance and may be most effective when accompanied by substantive emotional intelligence capabilities [6,22,23,25]. Anthropomorphism alone may create expectations of emotional understanding that, if unmet, fail to enhance emotion recognition [6,25]. However, when combined with genuine emotional resonance, anthropomorphic features may amplify the effect by creating a more immersive social-emotional context [7,23].

The strong support for H3 aligns with Emotion Perception Theory's emphasis on emotional awareness facilitating engagement [9,10,11]. When consumers possess heightened emotion recognition capabilities, they can better assess whether interactions meet their emotional needs, communicate preferences more effectively, and regulate affective responses-all of which sustain engagement [11,12,13,14,22,23]. This finding highlights emotion recognition as a critical psychological mechanism linking chatbot emotional intelligence to engagement outcomes [12,13,14].

The support for H4 confirms well-established relationships between engagement and behavioral intentions in marketing literature [19,20,21]. Engaged consumers develop stronger preferences, trust recommendations more readily, and perceive lower purchase risks, collectively increasing purchase intentions [5,14,20,29].

### 5.2. Practical implications

For organizations deploying emotion-aware AI chatbots, these findings offer actionable insights [1,3,20,21]. First, investments in emotional resonance capabilities-including sophisticated sentiment analysis, context-aware response generation, and empathetic language modelling-yield tangible returns through enhanced purchase intentions [3,19,20,21]. Companies should prioritize emotional intelligence over purely functional efficiency when designing chatbot systems [1,3].

Second, anthropomorphic design features, while showing marginal independent effects, remain important complementary elements [6,7,25]. Organisations should incorporate human-like conversational styles, personality traits, and linguistic patterns thoughtfully, recognising that effectiveness is maximised when anthropomorphism is paired with genuine emotional resonance capabilities [6,7].

Third, organizations should recognize that emotion-aware chatbots influence purchase intentions indirectly through psychological processes [5,20]. Rather than designing chatbots solely to maximize immediate conversions, marketers should focus on facilitating emotion recognition and fostering genuine engagement [12,13,14]. This approach builds sustainable customer relationships that naturally lead to favorable purchase decisions [5,20,29].

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