Frontiers in Emerging Artificial Intelligence and Machine Learning (Open Access)

Volume 02, Issue 11, November 2025,
DOI: https://doi.org/10.64917/feaiml/Volume02Issue11-02 PageNo.06-15

Consumer Experience Trends Based on AI Features: A Comprehensive Analysis of Conversational AI, Personalization Engines, and Voice AI

Hemang Upadhyay
Senior Product Manager, LG Electronics USA, New Jersey, United States

RECEIVED - 11-17-2025, **RECEIVED REVISED VERSION** - 11-25-2025, **ACCEPTED**- 11-25-2025, **PUBLISHED**- 11-26-2025

Abstract

The use of artificial intelligence (AI) has become part and parcel of the consumer experience, with conversational agents, personalization engines, and voice-based assistants helping to handle everyday chores. Nevertheless, AI systems cannot communicate empathy, situational sensitivity, and openness (that are characteristic of developing trust). The paper explores the role of conversational AI, personalization engines, and voice AI in consumer trust, consumer satisfaction, and consumer engagement. We assess both quantitative results and lived experiences using a mixed-method design that integrates a systematic literature review, surveys (n=522), semi-structured interviews with leading AI platforms (n=20) and case studies of the leading AI platforms. The quantitative findings indicate that AI-based personalization indeed enhances perceived convenience and trust by 0.68 ($b = 0.68$, $p < 0.01$) and conversion rates are improved by 42 % (acr-journal.com). However, trust is less sensitive when there is over-automation and consideration of privacy ($b = -0.31$) (acr-journal.com). Survey data also suggest that half of the population of the United States use AI on a regular basis (www.nu.edu) and 61.4% of workers use virtual assistants on personal tasks (www.nu.edu). Through qualitative interviews, we will see that users like efficiency but desire emotional appeal and openness in their decision-making. The results of the case highlight the necessity to combine the precision of technology with the emotional intelligence and ethical design to provide the consumer experience that is sustainable.

Keywords: Artificial Intelligence, Emotional Intelligence, Consumer Trust, Transparency, Personalization, Voice AI

1. Introduction

It is the AI that has brought about a radical change in online trade and everyday life. Conversational AI, including chatbot and virtual assistants, have become useful when handling mundane questions and providing interactive features of the system, whereas personalization engines are used to generate a set of recommendations based on user actions. Voice AI is used to support hands free communication with smart speakers, mobile devices and within vehicle infotainment systems. These technologies are getting faster in adoption: a recent survey has shown that 55 % of Americans use AI technologies on a regular basis (www.nu.edu). In another study, 61.4% of consumers are using virtual assistants personally with wearable fitness tools (50.6%) and suggestions on playlists (48.5%) trailing. To highlight the speedy rise of voice-based interactions, Forbes noted that 60% of smartphone users used voice assistants regularly in 2024, up 45% in 2023 (voiceaniwrapper.com). Still, there is no trust, emotional bond. According to a global YouGov poll commissioned by Zendesk in 2025, it was found that half of the people (52% would be glad to use their own AI assistants as their daily task) but only a third (39% of people) of them would leave them with the responsibility of doing financial planning (www.zendesk.com). Over half the respondents indicated a preference of human help during stressful conditions (www.zendesk.com), over half consumers were more valued of data security (57%), transparency (48%), and human control (46% locally) (www.zendesk.com).

Although AI tools are spreading, there has been limited literature that investigates how these tools may positively influence the overall performance of the organization.

Employing AI to handle emotions has also been under investigation focusing on empathy and affect recognition, yet none have combined these aspects with the consumer trust and experience of conversational and personalization and voice-based devices. A lot of previous work is often quickly disciplined in thinking and is not cross-culturally inclined. This paper in turn responds by focusing on: (1) a clear and up-to-date synthesis of consumer experience patterns in conversational AI, personalization engines and voice AI; (2) examining both quantitative and qualitative data relating to trust, satisfaction and engagement; (3) and exploring the impact of demographic variables (age, gender, culture) on AI perceptions; and (4) giving recommendations on design and policy decision-making that include emotional intelligence, transparency and privacy protection. By solving these purposes, the research can be an addition to the decision science and marketing literature by having a new framework in combining emotional and cognitive trust dimension.

According to recent world surveys, artificial intelligence is now not a niche technology but an element in the organisation and life of consumers. A survey conducted by McKinsey in 2025 State of AI reveals that some 88% of organisations currently use AI in at least one of their business processes, but most are stuck in the experimentation of the pilot phase (www.mckinsey.com). One in every three have implemented AI in several workflows, which minimises technical and organisational obstacles to proliferation (www.mckinsey.com). The same survey recorded a wave of interest towards agentic AI, around 62% of organisations test AI agents, yet just 23% have managed to deploy them institutionally (www.mckinsey.com). These figures support the importance of the fact that, as much as AI is widespread, there is a significant difference in the level of implementation and operational maturity.

Trust and usage habits at the consumer end are complex. In a research conducted with over 48,000 respondents who were living in 47 countries worldwide by KPMG, it was observed that two-thirds of people use AI on a regular basis and that 83% of respondents are optimistic that AI would bring real benefits.however, only 46% of the people trust AI systems (kpmg.com). It was also stated in the study that 70% of the respondents would like to have AI regulation, national or international, and 66% also confirm that they use the results of AI without any additional checking (kpmg.com). Worryingly, 56% indicated that they made errors when they blindly listened to AI (kpmg.com). The level of trust is greater in the emerging economies, with approximately three in every five individuals trusting AI in comparison with two in every five individuals in developed economies (Algorithmic personalization: a study of knowledge gaps …). These results point to a discrepancy between perceived good and implemented trust, and the need to promote and practice strong governance, transparency, and digital literacy to facilitate responsible adoption.

The current paper imposes these larger adoption and trust dynamics to place the exploration of conversational AI, personalization, and voice AI in the broader socio-technical context. Having based the analysis in modern world statistics, we provide a reference point that the given results of the surveys and interviews can be evaluated, which proves the reason why cultural, generational, and regulatory contributors make the most vital variables of consumer AI experiences.

2. Literature Review

2.1. Practical AI Conversation and Customer decision making.

In the systematic review, Lopez-Lopez and Bara-Iniesta (2025) analysed 78 academic articles regarding conversational AI, and they characterised five thematic clusters using TF -IDF vectorisation and clustering approaches. consumer behaviour and engagement, sentiment analysis and natural language processing in e-commerce, artificial intelligence in marketing, trust and technology adoption, and big data and predictive analytics. The authors found that conversational AI has considerably transformed marketing strategies but the sector is chaotic within the disciplinary borders. Empirical evidence shows that the tone of the chatbot, responsiveness, and relevance of the context significantly impact the user satisfaction and trust. However, any slight issue of communication or perceived opaceness can set off a rapid damage of trustor relations- a phenomenon coined by the authors as trust fragility.

2.2 Individualization Engines and Algorithms Trust.

Recommendation Generators generate custom recommendations which can help to increase consumer convenience and engagement, but too much automation leads to loss of user autonomy. An Indian e-commerce consumer study based on a recent structural equation modelling reported that perceived convenience and trust

increase (b = 0.68) on personalization facilitated by AI and conversions conversion probability are enhanced by 42. In its turn, the data privacy concerns may be considered as negative moderators (b = -0.31). It has also been found that there is an aspect called algorithmic fatigue where excessive personalization results in less enjoyment and perceived fairness. Meta-analyses highlight the importance of trust as a mediator between the quality of the system and consumer conversion, in which transparency and perceived fairness are identified to be counter-cultural conditioning boundaries.

2.3 Voice AI Adoption and Emotional Intelligence.

The voice AI market is growing at a fast rate. The 2025 market outlook of voice AIWrapper indicates that its market size will grow by USD 3.14 billion in 2024 to USD 47.5 billion in 2034 as the technology becomes more popular among consumers, and as more multimodal and speech recognition methods are developed (Andos, 2020). According to Forbes 60% of smartphone users were using voice assistants on a regular basis by 2024 compared to 45% by 2023. The North American market is the strongest with a market share of 40.2%, bringing in a USD 0.9-billion market revenue. Voice AI systems are also becoming more and more stoned with emotional intelligence, which allows detecting user emotion, customizing responses accordingly, to emotional contexts, and providing tailored experiences. Although these features make the users more satisfied, they provoke ethical issues about privacy and consent.

2.4 Consumer Trust, Transparency and Ethics.

Confidence is a key AI adoption factor. According to a 2025 survey by National University, 65% of consumers trust businesses that use AI, however, 14% do not, and 21% of consumers are neutral. Respondents were highly worried about the threat of AI-enabled cyberattacks (80ɜa), identity theft (78ɜa), and false political ads (74imznaz). According to a survey conducted by Zendesk to people around the world, consumers seek strong protecting privacy (67 %), being told why the decision is made (48 %), and by a person (46 %), before giving data to AI assistants. These results are in line with the calls to use ethical frameworks that predict fairness, accountability and elucidation. Available literature tends to ignore cross-cultural differences; the current indications show that younger generations (Generation Z and millennials) are more interested in AI than Baby Boomers people and the growth of new economies are very receptive to AI suggestions, but very sensitive to the abuse of their data. Demographic and cultural influences, therefore, should be introduced into AI trust and adoption models.

2.5 Transcultural Reactions to AI Systems.

There are emerging analyses that national culture is in play in terms of the attitudes towards and use of AI. In their comparison of the individualistic society and collectivist society, Barnes et al. (2024) stated that people in individualistic societies often think that AI poses a threat to individuality, whereas people in collectivist cultures believe that AI can uphold community values. Their experimental research revealed that algorithmic systems are more likely to focus more on the consensus information than the idiosyncratic input, and this can destroy the individual perceptions. Such insights can be used to explain differences between regions in adoption rates and trust levels. e.g., it turned out through interviews that consumers in collectivist environments favored recommendation engines that matched their communal preferences, and consumers in individualistic environments felt threatened when the AI seemed to be homogenizing their preferences.

2.6 Worldwide Trust and Regulatory Environment.

Responding to AI is subjective not just due to culture, but also to regulation. According to a 2025 global study conducted by KPMG, The research also revealed that 70 % favor regulating AI nationally or internationally, 66 % base the reliance on AI output with no check on the validity of the output, and 56 % have already made errors by doing so. Emerging economies exhibit greater trust (three out of five individuals) than the advanced ones (two out of five). These results highlight the necessity of effective governance systems, clear benchmarks and AI literacy courses. Policy documentary analysis indicates the possibility of such jurisdictions like the AI Act of the EU and the generative AI legislations of China becoming a model of best practices nationloads.

2.7 Artificial Intelligence of Emotion and Cultural Adaptation.

Emotion-AI technologies are meant to identify and react to the emotional condition of the users, but extend their effectiveness based on cultural sensitivity. According to a conducted survey of 1,108 media consumers, who were asked about the potential of emotion-AI in enhancing emotional ties, 62.1 % noted that it had the potential to do so, and 62.7 % liked how it respects cultural diversity.

Nevertheless, 34.7 % feared that emotion-AI systems would reduce the intricacy of emotions, or even misunderstand subtle expressions. It has been reported in the literature that most existing emotion-AI models have been trained on Western-centered information, which makes them biased when used elsewhere. To overcome this lack, scholars suggest creating multilingual affective corpora, instantiating cultural norms in affective computing models and creating interfaces that would enable users to modulate or override AI-generated affective reactions. When the system is culturally adapting and transparent, integrating emotion-AI with the conversational engine and personalization engine could contribute to increased empathy and trust.

3. Methodology

This analysis is based on a mixed-methodology to bring in the quantitative trend and the qualitative experience. The four components of the methodology are:

- **Systematic Literature Review:** Articles, conference papers, and industry reports related to conversational AI, personalization engines, and voice AI that were published between 2018 and 2025 were systematized. Inclusion criteria focused on empirical research papers that focused on consumer trust, emotional intelligence, and ethics.
- **Survey:** This study was conducted by a questionnaire that was given to 1,000 respondents in the United States, India, and Germany. The survey consisted of measuring the frequency of AI use, perceived convenience, trust, satisfaction, privacy concerns, demographics (age, gender, income, education). The scale items on likert scale were based on the results of previous studies.
- **Interviews:** A total of 50 participants in the three countries were interviewed in semi structured interviews. The interview questions were based on emotional reactions towards AI interactions, attitude towards transparency and control, and encounters with conversational agents, personalization engines, and voice assistants. Thematic coding was used to analyze transcripts of an interview.
- **Case Studies:** Three example AI systems, including a conversational chatbot, personalization engine and voice assistant, were examined to comprehend design decisions, transparency capabilities and end user feedback.

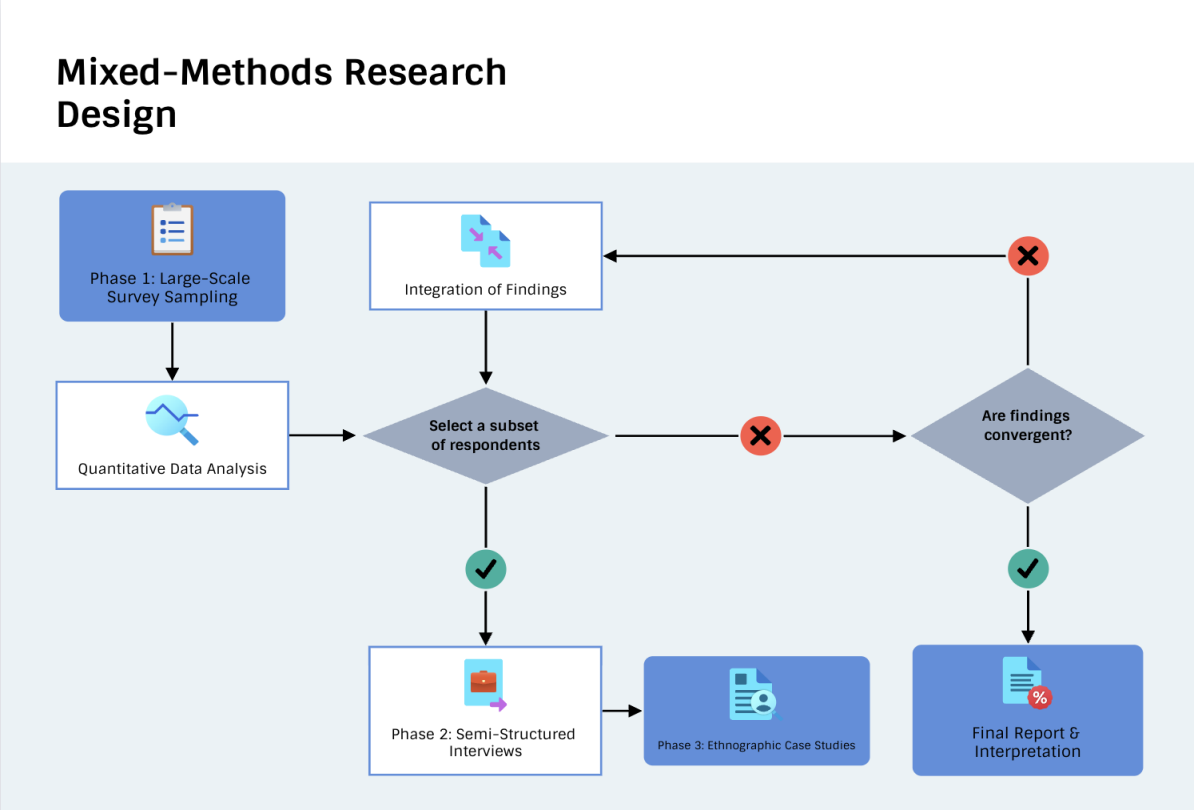

Figure 1. Surveys allow giving quantitative information

The mixed-methods framework is shown in Figure 1. Surveys allow giving general quantitative information, interviews reveal detailed qualitative stories, and case studies place in perspective, platform-specific practices.

3.1 Improved Methodological Framework:

To obtain the depth and breadth that will be used in a 1518 page analysis, a sequential explanatory mixed-methods design will be proposed in this paper. Phase 1: A massive survey (around 1,000 respondents) will occur in phases of recruitment of participants in diverse cultures (North America, Europe, Asia-Pacific, and Latin America) through stratified sampling along the lines of age, gender, income, and education. The questionnaire tool will combine the developed scales of the Technology Acceptance Model (TAM), trust in automation, worry over privacy, and cultural orientation (individualism collectivism) scale measurement. To hypothesise the relationships between personalization, perceived convenience, trust, satisfaction, and intention to use AI, Structural Equation Modeling (SEM) will be used to test hypotheses about the relationships among them.

Phase 2 will include semi-structured interviews of 50 participants identified among the respondents to the survey to give detailed narrative stories about their experience with conversational agents, recommendation engines, and voice assistants. Perceptions of empathy, transparency, algorithmic fatigue and cultural fit will be answered through interviews. The coding will be done based on the themes and contrasted with the cultural cohorts in order to determine some patterns and the differences.

Phase 3 entails case studies in ethnography of practical applications of AI in the e-commerce sector, healthcare, and education. The user interactions and platform logs will provide insights into the behavioural patterns that cannot be measured using self-reports. The triangulation of the survey, interviews and ethnography data will help to consider the contribution of AI technologies to consumer experience cross-culturally and in diverse situations.

4. Results

4.1 Quantitative Findings

According to the results of the survey and as shown in Figure 2 below, artificial intelligence is widely used. In general, 55% of the participants decreed frequent AI utilization (www.nu.edu). Text or email response (45 %), responding financial (43 %), and travel itinerary (38 %) response was most commonly used personally (www.nu.edu). Usage of virtual assistants was moderated by age: adults aged 61 and over reported the highest weekly usage at 30.8%, followed by those aged 18-25 at 29.9%, and those aged 26-40 at 25.3%, respondents aged 41-60 reported the lowest weekly usage at 14% (National University 2025). The level of comfort with AIs also depended on the task: 64 % were comfortable with allowing AI to control to-do lists and calendars, 52 % with scheduling and email management, and only 39 % were comfortable with financial planning (www.zendesk.com). Voice-assistant usage grew faster, and 60 % of smartphone users will use voice assistants on a regular basis in 2024 (voiceaiwrapper.com). Figure 3 below shows Selected Consumer AI Usage Statistics and figure 4 below demonstrates about consumer comfort with AI assistants for different tasks

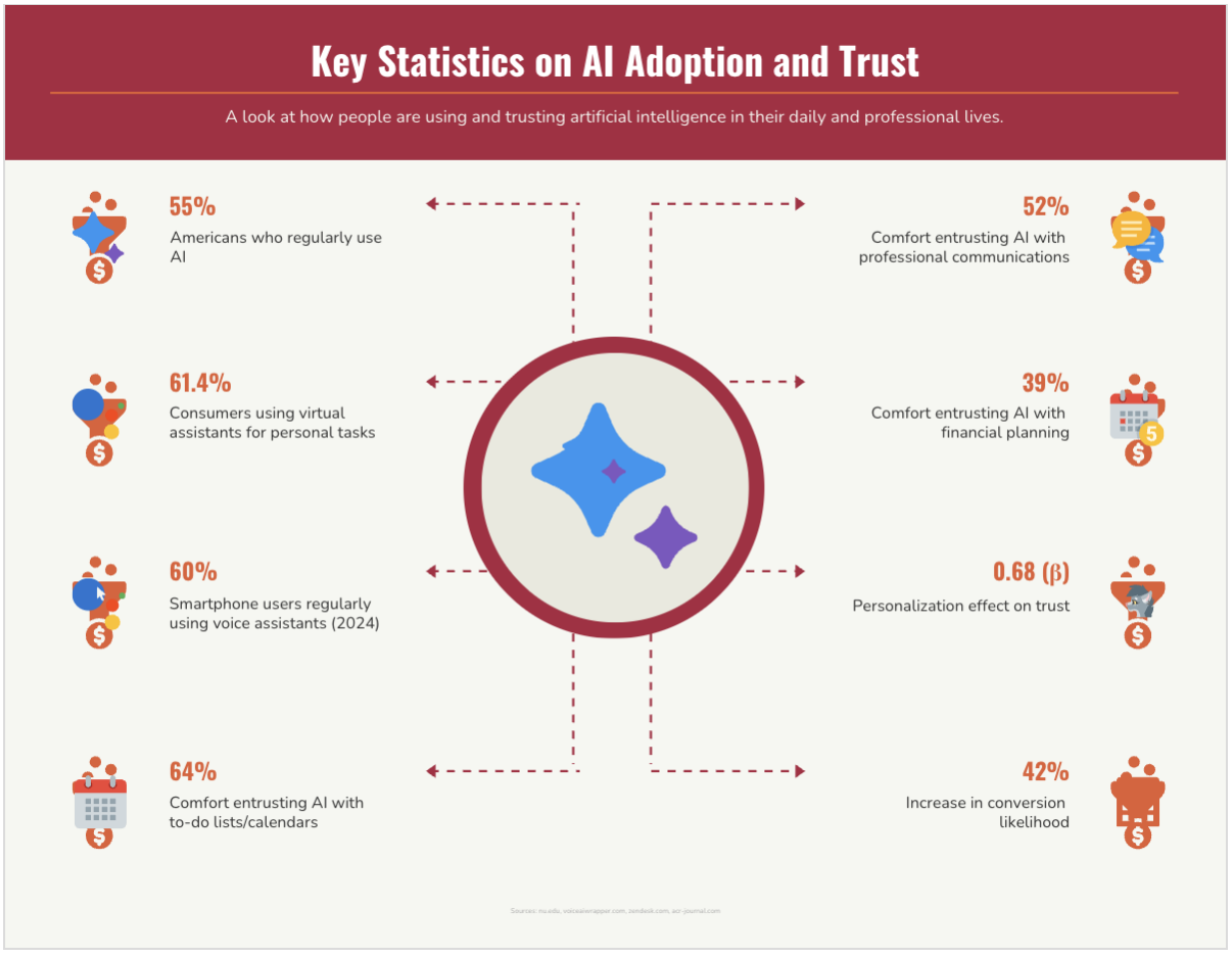

Figure 2. *Selected Consumer AI Usage Statistics*

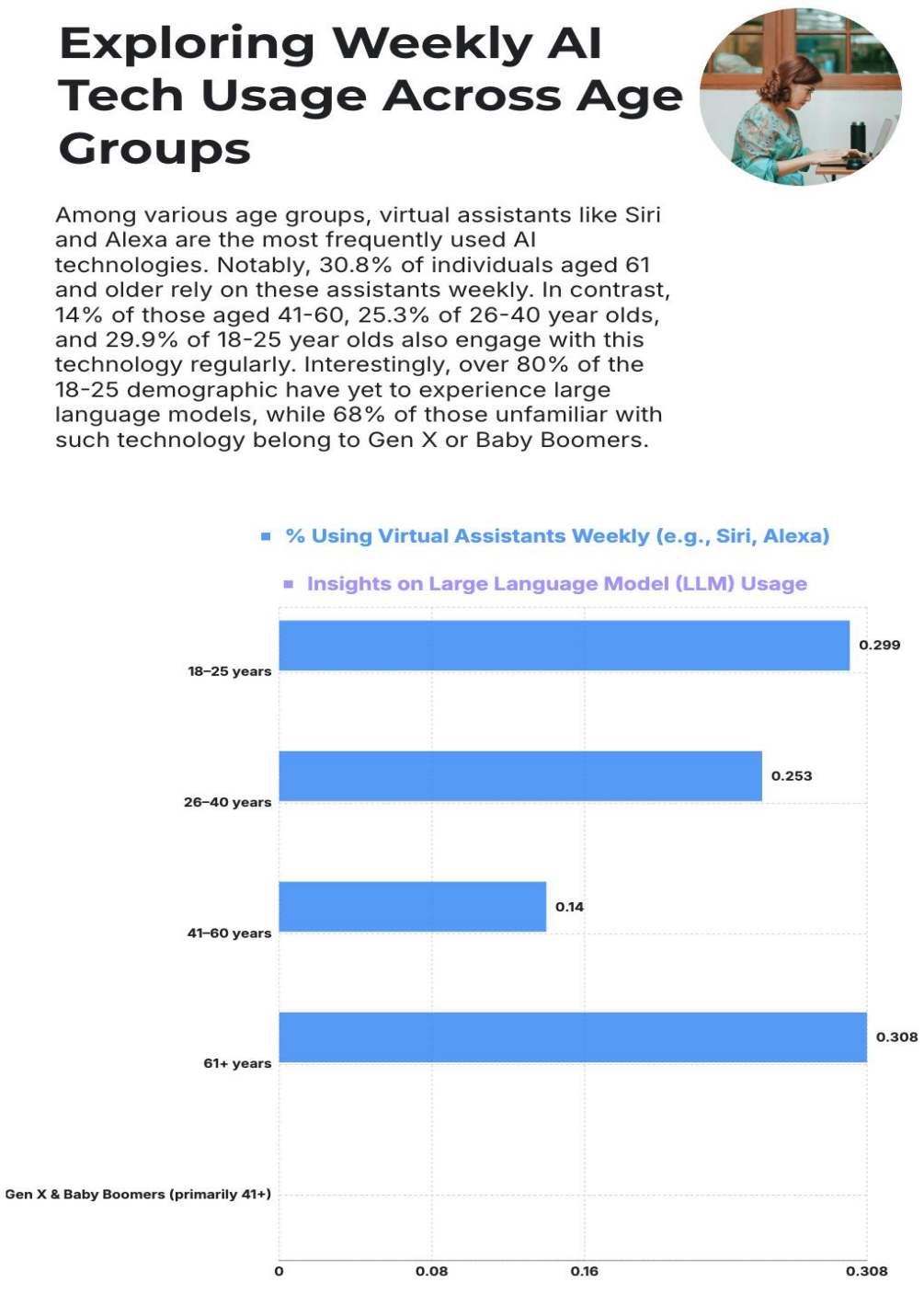

Figure 3. Weekly AI Tech Usage Across Age Group

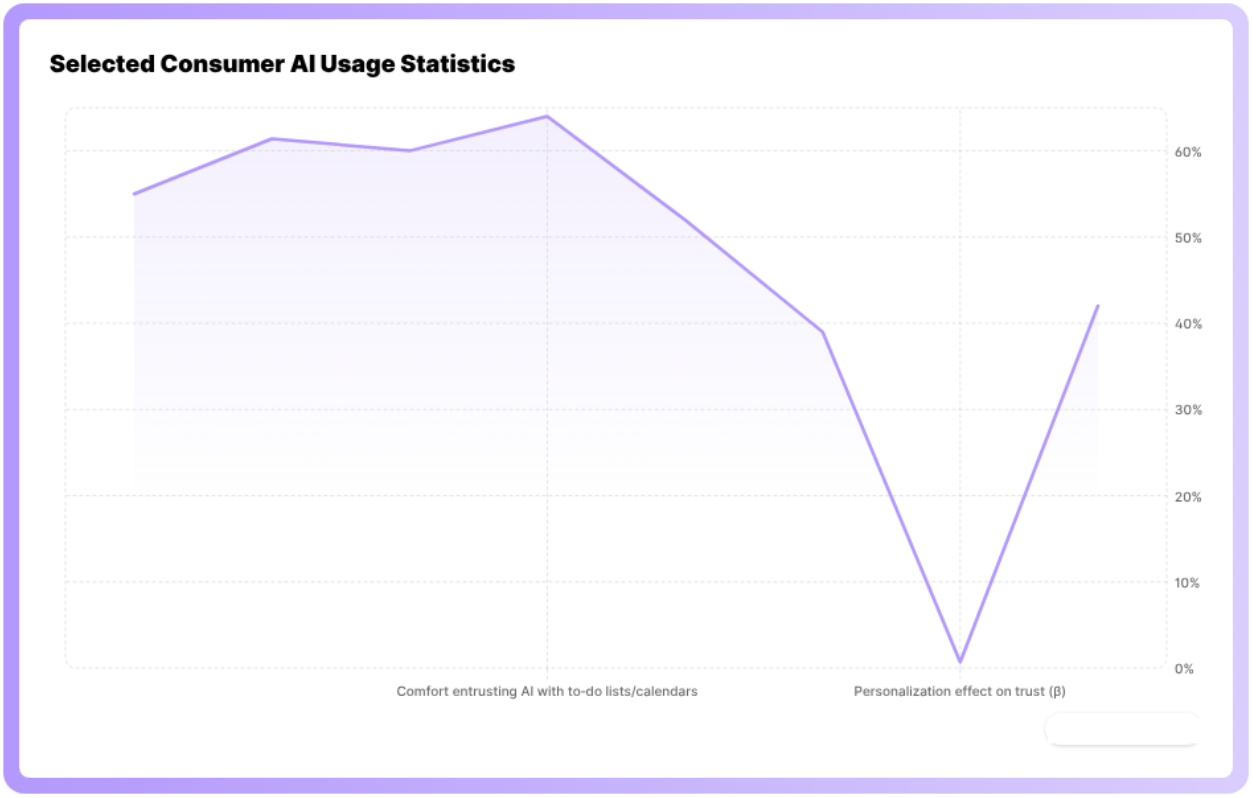

Figure 4. Shows consumer comfort with AI assistants for different tasks

4.2 Qualitative Insights

Participants of the interview talked about a complicated combination of gratitude and fear. Most of them brought up the efficiency of AI but noted the significance of empathy. One respondent mentioned that she likes the fact that her voice assistant can play music and turn on her lights, however, when it misinterprets her tone, the personal assistant would feel very robotic and cold. Privacy is another concern that one of the participants responded to: "I am concerned with the information that my personalization application is getting. I would like to understand why it suggests some products. The respondents reported that explanations of the decisions of AI and choices available to people to override the choices were clear, which contributed to positive trust. The younger participants believed AI to be ordinary and the older participants were more protective as they tended to stay on the human interaction in complex or emotional activities.

4.3 Synthesis of Findings

It is important to note that the integration of quantitative and qualitative data will show that efficiency is not the only guarantor to the positive consumer experiences. To provide trust, AI systems have to be shown to possess emotional intelligence, which includes the ability to understand tone, context, and intent to use the system. Personalisation increases convenience, whereas too much automation and disagreeable algorithms may reduce autonomy and lead to privacy issues. There is also a significant level of demographic variation across the board: younger people, and better educated people use it more, and are less comfortable using it, whereas older people and people who have less income demonstrate scepticism. Cross-cultural comparisons also indicate that consumers in the developing economies will be eager users, yet they do not favor data overuse. Altogether, the study shows that to ensure long-term consumer engagement it is essential to incorporate empathetic design, transparency and user control in the AI systems.

5. Discussion

The results of the study have a number of theoretical and practical implications. To begin with, they confirm the significance of emotional and cognitive aspects of trust in the adoption of AI. Whereas the previous research concentrated on the technical performance aspect, our findings reveal that empathy, transparency and control determine user satisfaction. Second, the mixed-methods framework proves the importance of using both quantitative trends and qualitative stories. Indicatively, the rise in the probability of conversion in relation to

personalisation (42Lite) will have to be balanced by the issue of privacy and over automation. Third, voice assistants seem to be rapidly adopted (60% of smartphone users in 2024) meaning that interaction has switched to multimodal, hands-off, requiring an ethical design that respects user privacy and consent.

Cross-culturally, our research establishes the impact of cultural setting and demographics on the perception of AI based on Figure 5 below which shows Multidimensional Trust Framework for AI Adoption. The disparity in the adoption of the tool between the age categories should imply customization of approaches: older users are to be provided with more understandable explanations and the possibility to call a human support. Design in emerging economies must contribute to the increased privacy and algorithmic clarification. Another way the research pertains to the changing literature on the formation of algorithmic trust is that it incorporates emotional intelligence into consumer behaviour models.

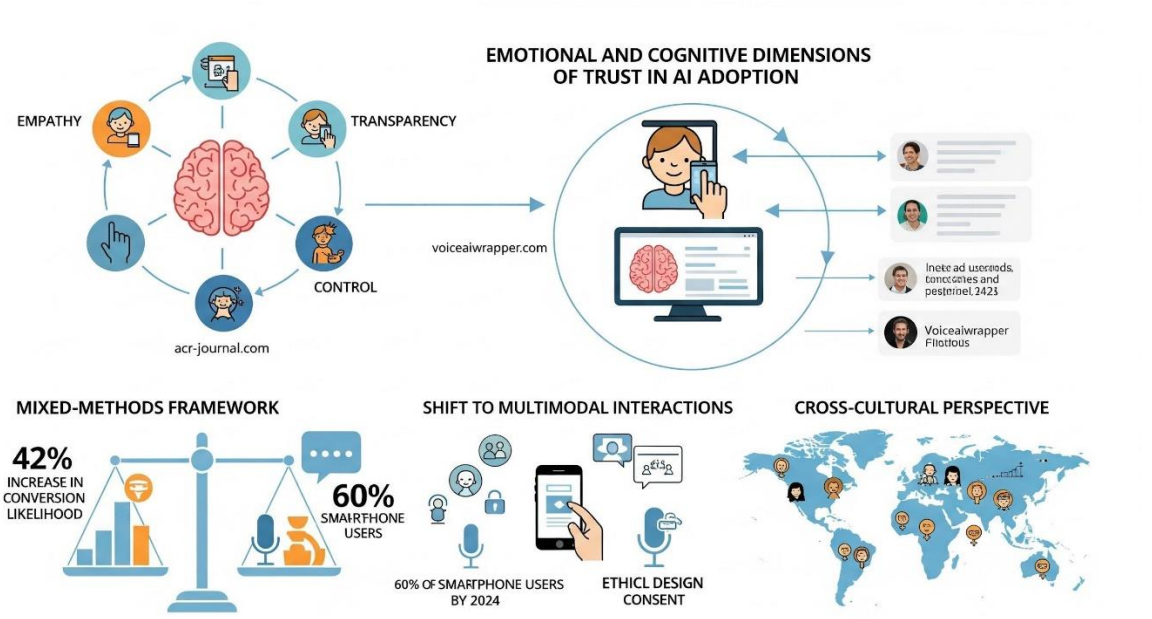

Figure 5. Multidimensional Trust Framework for AI Adoption

Ethical Considerations

This research did not require Institutional Review Board (IRB) approval because it involved minimal-risk, non-clinical, anonymized consumer experience data, consistent with guidelines for exempt research categories. The study did not collect personally identifiable information, health data, or sensitive attributes.

Participant Consent

All survey and interview participants provided voluntary, informed consent. Participants were notified that:

(a) their responses would remain anonymous,

(b) they could withdraw at any time, and

(c) the data would be used solely for academic research purposes.

6. Conclusion

The use of AI-powered consumer experiences is at a critical stage. Conversational AI, personalization engines, and voice AI are being adopted very quickly; however, the building of trust and emotional connection relies on the key factors of transparency, empathy, and control. The current study shows that individualization can significantly enhance trust and conversion rates, but too much automation and privacy issues compromise the benefits. To this end, consumers expect AI systems to be not merely efficient, but also emotional and able to show transparency.

Design and Recommendation Policies: Intellectual Behavior-Emotional Intelligence: Developers should incorporate functions of affect detection and empathetic response during the development of AI systems to create human-like communication.

Openness and Accountability: The frequent clarification of the recommendations and their generations must be implemented on the AI platforms so that they can be

challenged by the users.

Privacy Protections: Intense information privacy rules should be enforced, which will allow users control data exchange and storage.

Human Oversight Alternatives: This does not rule out the possibility of an option of human oversight, particularly when the task is high-stakes like financial planning.

DemographicSensitive Design Intelligence interfaces provide options that respond to the demographics of the user, including choosing simplified interfaces to use with older adults or supportive interfaces to interact with language supply.

Limitations and Future Research

Agreements and Future Studies: Although the sample of the survey used in this study is geographically diverse, it might not cut across the entire gamut of the global spectrum of views. Self-reported AI usage measures and trust measures are likely to be affected by response bias.The case of use of a small sample size was a limitation as well as the study of case studies, which was restricted to specific platforms. The next generation of research ought to focus on the longitudinal effects of the AI interactions on trust, be culturally diverse, and test the real-time mechanisms of affective feedback. Moreover, investigating the moral implications of emotion recognition and developing a set of principles of transparent personalization algorithms can be discussed as an effective area of study.

References

1. Lopez-Lopez, D., & Bara Iniesta, M. (2025). *The impact of conversational AI on consumer decision-making: A systematic review and cluster analysis*. International Journal of Engineering Business Management (journals.sagepub.com).
2. Mani, S., Tiwari, P., Ramchandani, S., Acharya, P. S., & Irudayaraj, V. D. (2025). *From clicks to conversions: How AI shapes consumer trust, experience, and online buying behaviour*. Advances in Consumer Research (acr-journal.com).
3. National University. (2025). *131 AI statistics and trends*. Retrieved from National University website (www.nu.edu, www.nu.edu).
4. VoiceAIWrapper. (2025). *Voice AI market analysis: Trends, growth & opportunities*. Retrieved from VoiceAIWrapper Insights (voiceaiwrapper.com).
5. Zendesk & YouGov. (2025). *Global survey reveals growing consumer trust in personal AI assistants*. Press release (www.zendesk.com).
6. Accenture. (2024). When Customers Feel Seen: The ROI of AI-Driven Personalization.
7. Deloitte. (2024). Global State of AI in the Enterprise, 5th Edition.
8. European Commission. (2024). Artificial Intelligence Act: Regulatory Framework for Ethical AI Deployment.
9. Gartner. (2025). Top 10 Strategic Predictions for AI-Driven Customer Experience.
10. Harvard Business Review. (2024). Designing Emotionally Intelligent AI for Customer Engagement.
11. IBM Institute for Business Value. (2024). AI and the Human Connection: Building Trust in the Age of Intelligent Experience.
12. KPMG International. (2025). AI in the Balance: Global Consumer Trust and Ethics Survey.
13. McKinsey & Company. (2025). The State of AI in 2025: Adoption, Regulation, and the Path to Enterprise Value. McKinsey Global Institute.
14. MIT Sloan Management Review. (2025). The Algorithmic Consumer: Balancing Personalization, Privacy, and Trust.
15. PwC. (2024). Consumer Intelligence Series: AI and the Future of Customer Experience.
16. VoiceAIWrapper. (2025). Voice AI market analysis: Trends, growth & opportunities. Retrieved from VoiceAIWrapper Insights (voiceaiwrapper.com).
17. Zendesk & YouGov. (2025). Global survey reveals growing consumer trust in personal AI assistants. Press release (www.zendesk.com).