

Exploring Brand Consumer Engagement in the Age of Algorithms: A Qualitative Approach

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ABSTRACT

Consumer engagement and digital communications with brands are highly mediated by technologies in the algorithm-driven era. Drawing insights from the Indian consumers, this research explores how consumers interact with and benefit from interactive and assistive technological tools in this era. A qualitative research design that incorporates Voyant Tools (VT) and the Grounded Theory Approach (GTA) to explore the complexities of engagement with technology was used. The researchers conducted 21 interviews across a diverse demographic of tech-savvy users in India to understand their challenges while navigating digital technological tools. The research identifies Trust equity, a Smart AI ecosystem, Accelerated Operational Dynamics, and Mindful Personalization as enabler dimensions that enhance business-consumer relationships. It highlights the inhibitor dimensions of Privacy Anxieties, Unintuitive Anthropol, Expectation Misalignment, and Tech Parameters, which signify consumer expectations of brands. The study augments the theoretical understanding of how technology influences consumer engagement with brands in the age of algorithms. Brand and marketers can utilize the enabler dimensions of the research to develop empathic tech interfaces that enhance consumer convenience and satisfaction by minimizing the inhibiting dimensions. The research is unique in its application of thematic analysis using VT and GTA to examine the dual aspects of tech-driven engagement across diverse demographics and geographical locations in an emerging economy like India. As India continues to strengthen its position as an emerging economy, this research brings a significant angle into how digitally mediated environments influence emotional, cognitive, and behavioural facets of brand-consumer engagement in the context of emerging economies' consumers.

Keywords: Consumer Engagement, Tech Interfaces, Assistive Tools, Digital Trust, Voyant Tool, Grounded Theory.

INTRODUCTION

The integration of digital technologies into business and marketing strategies has transformed the way brands interact with consumers. Innovations in artificial intelligence (AI), machine learning, data analytics, and customer relationship management (CRM) systems have empowered businesses to understand consumer behaviors more deeply and deliver personalized experiences (Sağkaya Güngör & Ozansoy Çadırcı 2022). These advancements have accelerated the transition from traditional to digital shopping behaviors, enabling real-time interactions and targeted messaging (Matosas-López 2024). Mobile commerce (m-commerce) platforms and app-based interactions serve as critical touchpoints, using algorithms for dynamic pricing, product recommendations, and personalized

advertisements to optimize customer experiences (Hutchinson et al. 2021). Personalization has evolved beyond convenience to influence how consumers perceive themselves and their relationships with brands. As digital tools become embedded in everyday life, they influence consumer identity and self-concept (Bartoli 2022). Technologies such as augmented reality (AR) and virtual reality (VR) in retail and e-commerce enhance product interaction, system quality, and informativeness, which directly impact trust and perceived value (Ramdani et al. 2022; Yang & Lin 2024). Simultaneously, the use of chatbots and virtual assistants (VAs) allows brands to automate consumer service. Designed with anthropomorphic features, these tools develop emotional attachment and perceived empathy (Araujo 2018).

Although digital technologies enhance brand reach and personalization, they also raise concerns about ethical conduct, emotional disconnection, and fatigue. Existing literature often emphasizes the benefits of technology-driven engagement but insufficiently explores consumer discomfort with over-targeting, data exploitation, and emotional detachment. Personalized recommendations are often welcomed, but growing consumer unease about data profiling, intrusive targeting, and dark patterns—such as artificial urgency or fear-based messaging—underscores the need for more transparent and ethical digital strategies (Ullah et al., 2023; Singh et al., 2025). On the one hand, AI enhances targeting and efficiency in social media marketing, but it may reinforce data biases, raising ethical concerns and risking consumer trust (Sharma & Sharma 2024). AI-enabled personalization positively influences trust, privacy concerns, and perceived usefulness, while privacy concerns hinder the associated positive effect (Teepapal 2025). The growing consumer concerns around manipulation, surveillance, and algorithmic decision-making suggest that hyper-personalization may compromise autonomy and trust (Riegger et al. 2022). This tension between consumer empowerment and technological control is often underrepresented in the research available. An empirical field and experimental study by, (Bornschein et al. 2020), using contextual integrity theory, reveals that while cookie notices and opt-in mechanisms can empower consumers by increasing perceived control. As consumers grow more digitally literate, they also demand greater control over how their data is used and how frequently they are contacted (Wohllebe, 2020). Mobile apps are central to digital outreach, offering tools like geo-tagging, push notifications, and mobile loyalty programs (Garcia 2022). While such tools can increase engagement and brand recall, excessive messaging and lack of user control often result in notification fatigue and irritation (Wohllebe 2020). Social media platforms are now essential for brand visibility and consumer interaction also allow brands to monitor sentiment, collect feedback, and embed gamified features to increase engagement (Mohammad et al. 2024). The massive collection of personal information in the metaverse raises questions regarding its use, storage, and security; hence, it becomes crucial to provide openness, responsibility, and user control over their data in order to preserve consumer and marketer confidence (Rastogi & Irfan 2025). Furthermore, the diminishing of human touch in service delivery can weaken the emotional tone, while the use of persuasive technologies can unintentionally generate negative emotions, dissatisfaction, or distrust (Haupt et al., 2023; Ramaiah, 2019).

In India, the most populous country (Felix Richter 2023) and one of the most prominent emerging economies, the consumers are tech-savvy and connect easily with digital media platforms (Jain & Schultz 2019). Digital services are quickly becoming essential for India's over 700 million internet users, including 350 million digital payment users and 220 million online shoppers (FIRST (INDIA SME FORUM) 2024). According to the Indian Brand Equity Foundation, the economy driven by the digital sector is expected to increase multi-fold and reach US\$1 trillion by 2030 (IBEF, 2024). The rise of digital marketing has significantly influenced online shopping behaviors in India. Digital marketing strategies need to be studied and tailored to these factors to be workable and effective (Sharma et al. 2024). It will be important to study whether the growing reliance on automation can lead to consumer alienation if emotional needs are not met (Haupt et al. 2023).

This study contributes to the literature in the following ways. It adopted a novel multimethod approach, utilizing sentiment analysis with Voyant Tools and GTA. Where most studies use quantitative, metrics-driven approaches and focus predominantly on the benefits of technological tools, rather than their potential pitfalls, this study investigated consumers' engagement with technology, including their expectations, desires, and concerns regarding digitally driven brand interactions. From a business perspective, the study reveals the critical dimensions (enablers and inhibitors) that shed light on the factors influencing the long-term sustainability of tech-driven interaction and engagement with consumers. The conceptual framework provides actionable strategies for the brands that align with technological implementations and consumer-centric principles, promoting long-term sustainability. As India continues to strengthen its position as an emerging economy, this research brings a significant angle into how digitally mediated environments influence emotional, cognitive, and behavioural facets of brand–consumer engagement in the context of emerging economies' consumers.

LITERATURE REVIEW

Businesses' swift integration of digital technologies has transformed how consumers engage with brands, resulting in faster, more accurate, and timely interactions. Engaging customers through technology enhances their

experiences, strengthens brand loyalty, and encourages ongoing investment in new technologies (Kaushik et al. 2025). Nonetheless, while digital tools provide exceptional benefits, companies can sometimes become self-centred and focus more on unwarranted innovations than on actual consumer needs. The trust can be compromised if brands prioritize innovation over consumer requirements (Puspaningrum & Suyono, 2020).. This literature review examines the complex relationship between technology and consumer engagement within the broader context of digital transformation, highlighting its benefits, the associated challenges and research gaps (indicated in *Italics* at relevant places).

Integration of Digital Technologies in Customer Connect

Numerous studies have investigated the integration of digital technologies into business processes, highlighting their crucial role in delivering enhanced customer experiences. The transformation is driven by the need to create, maintain, and deliver value to customers through digital platforms (Mavitha & Kushe Shekhar 2025). The depth of perceptual, temporal, and emotional investment in digital interactions is a key indicator of effective user engagement. A comprehensive approach to user experience (UX) considers emotional, cognitive, and behavioral parameters that are interconnected during the user's interaction with technology (O'Brien, 2017; Oyedele et al., 2018). The Internet and digitalization enable consumers to shop and acquire products and services with a single click. The resultant rise of e-commerce and mobile channels has made shopping more convenient, influencing consumer behavior towards more frequent and diverse online purchases (Demyen 2024). Parallely, socio-cultural factors and the demand for user-friendly interfaces influence brands to adopt digital tools, such as mobile payment apps and e-commerce platforms. Therefore, continuous improvements driven by user feedback are essential for maximizing usability and boosting consumer engagement (Alti and Lakehal, 2025; Farinloye et al. 2024).

AI-Driven Business Processes

It is also the zeitgeist of Artificial Intelligence (AI), which has been affecting every aspect of human life, including the core foundations of brand and consumer relationships. AI in e-marketing enables personalized interactions and enhances customer engagement by predicting and responding to customer needs in real-time (Behera et al. 2024). Generative AI technologies improve user satisfaction by providing adaptive and personalized user interfaces (Alti & Lakehal, 2025). It can enhance the relationship between retailers and shoppers by helping them develop effective marketing strategies to attract and optimize their supply chains (Kozlova et al. 2021). Recommender systems can enhance customer personalization, while conversational agents, such as chatbots, can improve customer engagement. Both individually and collectively, these technologies can enhance customer experience along the customer journey (Prentice & Nguyen, 2020) and impact customer engagement and loyalty. Voice interaction with a virtual assistant (VA) that exhibits functional intelligence, sincerity, and creativity encourages consumers to engage in exploratory behavior, leading to consumer satisfaction and a willingness to continue using voice assistants (Poushneh 2021). It has been demonstrated by (Sung et al. 2021) that the quality of AI (i.e., speech recognition and synthesis via machine learning) associated with an augmented object, Mixed Reality (MR) immersion, increases spatial immersion, enjoyment, and consumers' perceptions of novel experiences. These factors enhance consumer engagement and improve behavioral responses, including purchase intentions and the propensity to share experiences with social groups. While everything looks affirmative, a natural question arises regarding how consumers perceive technology-driven brand interactions compared to traditional methods.

Moreover, there are likely opposing views on tech-driven touchpoints from the consumer perspective, driven by experience and collective perception. More research is needed to understand if specific factors contribute to positive or negative consumer experiences in tech-enabled engagements.

Rising Concerns

In their exploratory research (Quach et al., 2022), the researchers emphasize that while digital technologies have transformed marketing and business practices, they have also raised significant privacy concerns, impacting consumer–firm relationships and prompting changes in regulatory interventions and individuals' privacy-protective behaviors. Based on a study of the impact of AI-driven social Marketing for digital health (Liu et al., 2021), address the ethical concerns related to the use of AI, as raised by stakeholders. These concerns need scrutiny that could help organizations establish trust, minimize privacy invasions, and ultimately facilitate the responsible success of AI-enabled social media operations. Using push notifications, the companies can communicate with smartphone app users through advertising messages via notifications, thereby creating added value in content (Wohllebe 2020). However, excessive notifications can lead to disruption and interruption. Therefore, advertisers need to understand how the frequency of message delivery affects consumer acceptance. (Haupt et al. 2023) found that chatbots, prominent conversational agents, are increasingly implemented as user interfaces by brands on digital platforms and electronic markets. However, Chatbots often fail to deliver suitable responses to user requests. In turn, individuals are left dissatisfied and turn away from chatbots, which harms successful chatbot implementation and

ultimately affects the brand's service performance. In their research, Rohden and Espartel (2024) highlight that while AI-driven recommendations can alleviate choice overload and facilitate easier purchase decisions for consumers, they are also associated with increased uncertainty in decision-making. AI recommendations are perceived as more uncertain, reducing perceptions of control over the choices. Growing consumer unease about data profiling, intrusive targeting, and dark patterns—such as artificial urgency or fear-based messaging—underscores the need for more transparent and ethical digital strategies (Singh et al., 2025; Ullah et al., 2023).

While digital tools and AI-powered assistants can handle routine inquiries efficiently, they often fall short in urgent situations due to their limited conversational abilities and lack of human-like empathy (Bührke et al., 2021). The diminishing of human touch in service delivery can weaken emotional bond, while the use of persuasive technologies can unintentionally develop negative emotions, dissatisfaction, or distrust (Haupt et al. 2023). As consumers grow more digitally literate, they also demand greater control over how their data is used and how frequently they are contacted (Wohllebe 2020). Therefore, it is essential to understand how technology enhances or hinders genuine consumer engagement with brands and how emerging technologies, such as AI, AR/VR, and chatbots, impact emotional connections with brands. Moreover, despite the increasing reliance on digital interfaces, a successful customer relationship management (CRM) requires consistent experiences across various touchpoints, including social media, mobile apps, and AI-powered tools. Importantly, the human touch is indispensable for generating deeper customer relationships (Wibowo 2024). More research is required to determine the impact of technological engagement on consumer trust and loyalty to a brand, as well as to identify the specific touchpoints that lead to higher or lower consumer satisfaction.

The analysis of LR indicates that the intersection of consumer engagement, technological interfaces, and digital transformation presents brand challenges and opportunities. Any research should aim to determine how brands can strike a balance between meaningful engagement and excessive technology use, while also outlining the necessary roadmap for engaging consumers through effective technology strategies.

Requirement of a Qualitative Study

The literature review also highlights the dominance of quantitative metrics-driven approaches to the research in tech-driven consumer engagement due to the availability of online survey tools for scalability and the need for generalizability, efficiency, predictive power, technological integration, and scalability drives (Janiszewski & van Osselaer 2022). However, a deeper understanding of consumer feelings, experiences, and contextual understanding is often sacrificed at the altar of quantitative studies. Therefore, qualitative research, as adopted by the researchers here, is essential for capturing the richness of human experiences, making it a valuable complement to quantitative methods (Morales & López 2008).

RESEARCH METHODOLOGY

Research Design

This study undertook a qualitative investigation, focusing on participants' lived experiences, emotional responses, cognitive patterns, and subjective insights, to explore dimensions in technology-driven consumer engagement (David Silverman 2017). The researchers used Voyant Tools (VT), a web-based thematic analysis platform developed by Sinclair and Rockwell (2016). VT facilitates the exploration of textual data through computational text analysis techniques, offering visual and statistical representations such as word clouds, frequency graphs, keyword-in-context (KWIC) tables, and trend lines. According to Liu (2012), sentiment analysis effectively captures the nuances of participants' emotions, offering valuable insights into consumer attitudes and behaviors. The study used the Grounded Theory Approach (GTA), a methodology developed by Glaser and Strauss (1967). GTA supports an iterative process of data collection and analysis, in which researchers code interview data into emergent categories and refine their conceptual framework throughout the study (Judith A. Holton 2012). This process is particularly beneficial for examining the dynamic and individualized ways consumers interact with technology. The combined use of GTA and VT enabled researchers to get a deeper understanding of both the cognitive and emotional aspects of consumer interaction with technology, thereby contributing to the development of a grounded and contextually rich conceptual framework.

Sample Framework, Demography, and Data Collection

A total of 21 tech-savvy respondents were approached for the in-depth interviews. The sample consisted of a reasonably diverse mix of males and females aged between 22 and 67 years, comprising 12 males and 9 females (Refer to Table 1 for the demographic profile of respondents). The researchers used purposive sampling, a non-random technique that enables the selection of participants based on specific characteristics relevant to the study (Etikan 2016). Efforts were made to minimize sample bias through demographic diversification in the sampling,

and recruiting respondents from different cities, genders, and professions. A semi-structured interview technique was used for the interviews. This method enables the researchers to follow up on emerging themes while maintaining participant consistency (Khan, 2014). Interviews were conducted based on the participants' availability and convenience. Of the twenty-one interviews, six were conducted in person, and fifteen were conducted via telephone. Telephone interviews are cost effective, convenient and adaptable, enabling participation regardless of location albeit, the absence of physical presence can reduce the depth and personal connection of the conversation (Azad et al. 2021). The average schedule of each interview was around 20 minutes, but a few exceeded even 35-45 minutes. A significant variability is expected in interview lengths when conducted via telephone or in person (Hershberger and Kavanaugh 2017). The interview guide used by the researchers included 10 interrelated questions beginning with demographic inquiries and progressing to participants' experiences, perceptions, and expectations of technological tools used to engage with brands. The interviewer avoided any prompting, and the participants were assured anonymity to encourage honest responses (Marshall et al. 2013). These steps were taken to reduce selection and response biases and enhance the credibility and transferability of the findings (Battista & Schultz, 2024; Gao, 2020). All interviews were audio recorded with consent, transcribed using a speech-to-text converter, and subsequently edited to preserve response integrity while aligning with the study's objectives- a common practice in any qualitative research (Wollin-Giering et al. 2024).

Table 1: The Respondent Sample Description

Respondent No.	Gender	Age	Education	Profession	Location
1	F	26	BE	IT-Professional	Bengaluru
2	M	25	B. Tech, MS	ML-Engineer	Mumbai
3	M	22	B. Tech	Student	Pune
4	F	55	BE, MBA	Delivery Manager in Finance Co.	Mumbai
5	M	37	MBA	Sales Manager	Hyderabad
6	F	22	BE	Student	Pune
7	M	43	B. Tech, MBA	Sales Manager in Oil & Gas Industry	Kanpur
8	F	24	B Com	BPO Employee	Pune
9	M	26	BE, MBA	Strategy & Analytical Manager	Mumbai
10	F	43	MBA	Educator and Artist	Mumbai
11	F	42	PGDM (Eco)	Research Consultant	Pune
12	M	45	Grad in CS	IT-Professional	Pune
13	M	32	MBA	Marketing Professional	Nashik
14	F	29	MBA	Digital Advertising Professional	Mumbai
15	M	67	Double PG	Sales & Marketing Professional (Retd.)	Mumbai
16	M	43	BE, MBA	Project Manager	Mumbai
17	M	44	MBA-Supply Chain	Functional Consultant in IT	Pune
18	M	63	MBA	Consultant	Mumbai
19	F	32	MBA	Educationist	Pune
20	F	35	MBA	Product Manager	Lucknow
21	M	47	MBA, LLB	Consultant	Ahmedabad

Source: Authors' Own Work

DATA ANALYSIS AND DISCUSSIONS

Multiplatform Usage: It appears that consumers use a variety of digital apps and tools based on their explicit needs (Refer to table 2). 20 out of 21 respondents in the current study reported using mobile apps for shopping, indicating a strong preference for making online purchases on devices like smartphones. This trend may reflect the increasing convenience and accessibility of mobile commerce, meriting further studies.

Table 2: Tech Platform Usage by the Respondents

Usage Category	Preferred Tech Platforms
Information and Reviews	Instagram, Google, and Amazon
General Shopping	Amazon, Flipkart
Fashion & Beauty	Myntra, Nykaa, Amazon
Kids Need	First Cry
Electronics & Gadgets	Amazon, Flipkart, eBay
Groceries & Essentials	Blinkit, Zepto, Big Basket, Milk-Basket
Food Delivery	Swiggy, Zomato
Travel & Bookings	Uber, Ola, MakeMyTrip, ClearTrip, Goibibo
Education, Learning	Udemy, Coursera, LinkedIn Learning, YouTube
Banking and Finance	Apps of the respective brands
Entertainment and Engagement	Instagram, Facebook, YouTube, and WhatsApp

Source: Authors' Own Work

Tech Preferences Differ According to Age Groups: The findings show that younger consumers are more likely to engage through social media and are open to trying new brands and services. In contrast, older consumers prioritize convenience and familiarity, preferring well-known brands and leaning toward value-based purchases (Refer to Table 3).

Table 3: Age-wise Tech Preferences

Age Group	Preferences
20-30 (Students/Early Starters in Career)	Social media-driven shopping, Prefer influencer recommendations, Prioritize quick commerce for essentials.
31-40 (Young Professionals & New Parents)	Convenience-focused, Balanced shopping between using e-commerce sites and direct brand websites, Rising preference for quick commerce.
41-50 (Middle-Aged with Settled Career, Grown-Up Kids)	Prefer reliability, known brands, and easy returns Focus on utility rather than impulse.
50+ (Older Consumers-Less Tech Savvy, Choosey and Value Seekers)	Prefer well-established brands., Value product reviews and customer support.

Source: Authors' own work

Male vs. Female Preferences for Technology: The findings indicate that female consumers primarily use technology for convenience and personalized experiences, especially in categories like fashion and beauty. On the other hand, male users use technology more for accessing services like travel bookings, financial transactions, and electronics purchases (Refer to Table 4). These patterns suggest possible gender differences in digital consumption behavior that warrant further research.

Table 4: Male vs Female Preferences for Technology

Gender	Preferences
Female	Higher engagement in fashion, beauty, and personal care. Use Ola or Uber for safety and reliability.

	Use social media like Instagram for product discovery and research.
Male	More purchases in electronics, financial services, and travel bookings. Use Google and Amazon for product research.

Source: Authors' Own Work

Advantages of Using Technology to Interact with Brands: The VT-Cloud and the associated word frequency indicate consumers connect with brands online to save time (instead of visiting a physical store) and money (searching for deals), enjoy the convenience of shopping (product choices, freedom of selection, and the flexibility to shop any time), along with expected customer service and easy returns (Refer to Figure-1).

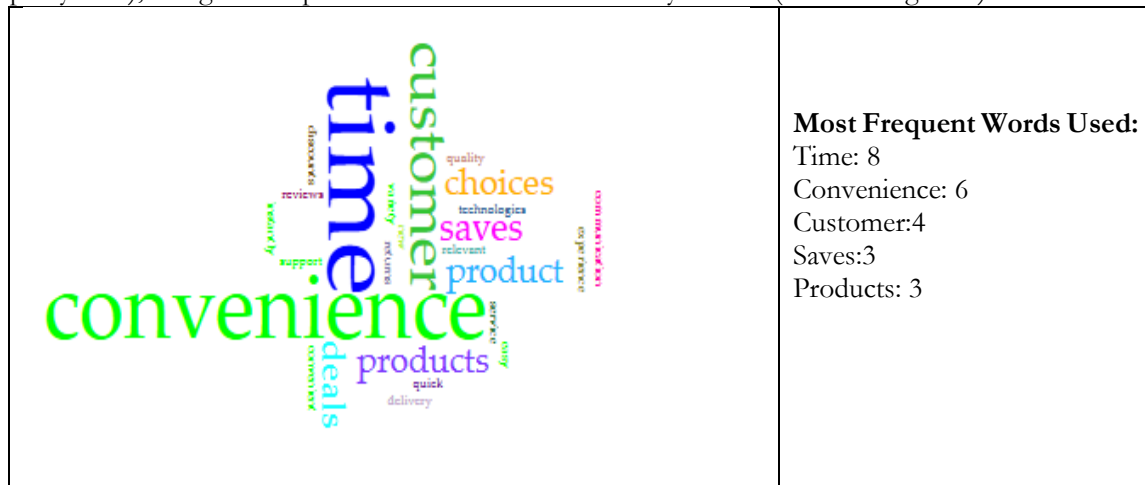


Figure 1: Advantages of Technology

Source: Authors' Own Work

Respondent No. 6 -

“When I engage with brands, I stay updated on new technologies and trends. Platforms personalize my experience by showing me relevant products based on my searches. Many brands also provide special deals for online customers, and reaching out for support has become easier with chatbots and WhatsApp communication”.

Concerning Areas with Technology: Dominance of data in the VT-word cloud, followed by privacy, excessive promotions, and promotional emails, messages, and push notifications, hint at significant concerns when interacting with brands on digital platforms. Consumers show a clear discomfort with privacy issues and pushiness of brands (Refer to Figure-2).



Figure 2: The Concerning Areas

Source: Authors' Own Work

Respondent No. 6: “Sometimes brands send unnecessary promotional emails, creating clutter in my inbox. AI-generated suggestions are not always useful or up-to-date. Additionally, many chatbots fail to solve complex issues, and websites with slow loading times or confusing interfaces can be frustrating. Data security is also a concern, as users often unknowingly accept cookies and data tracking.”

necessary for critical matters, as chatbots, although driven by AI, are still not equipped to resolve consumer queries (pink line) (Refer to Figure 5).

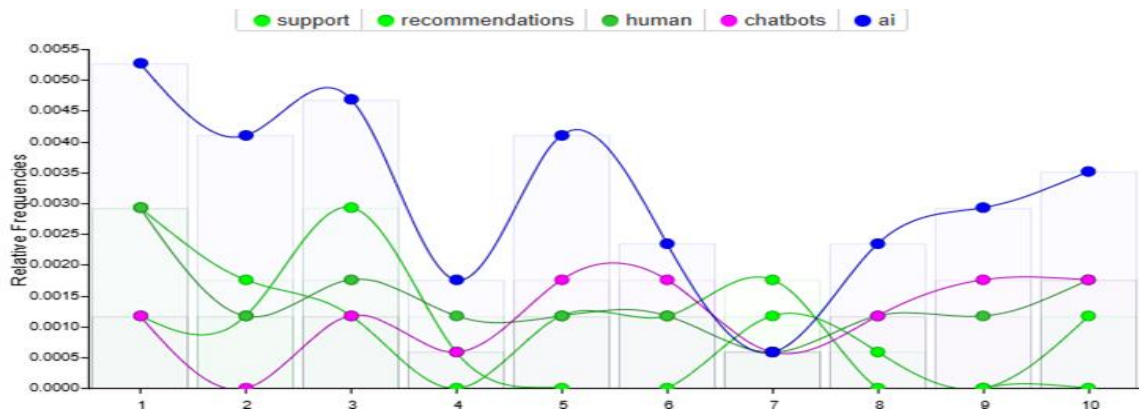


Figure 5: AI-driven Support Systems and Trust Factor

Source: Authors' Own Work

Respondent No. 3: “AI-driven interactions can be highly efficient for FAQs, basic troubleshooting, and providing 24/7 support, which reduces waiting times. However, they can be frustrating when handling complex issues that require human understanding. There should always be an option to switch to a human agent when necessary.”

Application of GTA for Creating the Engagement Theme: The researchers applied GTA to bring out the dimensions needed for creating meaningful and engaging consumer experiences and the roadmap the companies can take for appropriate investment in the technology (Refer to Table No. 5):

Table 5: GTA Dimensions

	Respondent (M/F)	Descriptive Codes	Second Themes	Order	Theoretical Dimensions
Constructing the Engagement Theme Through Technology	R1 (F)	We were heading to a concert outside Bangalore. We had pre-booked an Uber cab. After confirming the location, the driver realized it was a remote area and cancelled the ride. This delayed us by 30–45 minutes. Later, we booked another cab. That driver was very helpful—he went the extra mile (literally!) and dropped us exactly at the venue even though the app showed the stop a kilometre away. He didn't ask for extra money. That helpful gesture stood out.	Brand's ability to come to the customer's aid when the customer is in distress.		Trust Equity
	R4 (F)	I purchased a TV via Amazon that had some issues. Since it was under warranty, Amazon promptly replaced it with a new one. Once, I received rotten fruit from Blinkit. I clicked a photo, uploaded it, and received an instant refund without human interaction. That efficiency was impressive!	Protection from Financial Risk		
	R2 (M)	For me, AI tools have significantly enhanced brand interactions. For example, AI-powered search tools (like Siri) provide not only search results but also brand recommendations with rankings, making decision-making more efficient compared to a simple Google search.	Technology as a facilitator of interaction and decision making		Smart ecosystem AI
	R3 (M)	A great example is AI-powered customer support chatbots that provide instant answers. For instance, using an AI chatbot for order tracking or troubleshooting technical issues saves time and improves the overall experience. Another example is Augmented Reality (AR) or Virtual Reality (VR) shopping, where customers can virtually try on clothes and see how furniture fits in their space.	AI tools and AR/VR Technology help enhance consumer engagement.		
	R9(M)	Since I travel a lot, navigating congested airports with multiple check-ins used to be a hassle. Digi-Yatra has made the process seamless, eliminating long waits and unnecessary interactions. Another example is ordering food at McDonald's. Earlier, I had to wait in line and explain my order to a cashier. Now, with digital kiosks, I can take my time, customize my order, and place it without any pressure. It provides a much better experience. It also offers independence and freedom.	Systematic identification of customer priorities of smooth navigation and time saving		Accelerated Operational Dynamics
	R14 (F)	Yes! A recent experience with Zepto was quite unique. It was Valentine's Day, and most online platforms were bombarding users with 'gift for him/her' campaigns. However, when I opened Zepto, they had a different approach. They included an option for singles and allowed users to select their relationship status through a slider. Based on the selection, the product recommendations changed accordingly. This level of personalization made the shopping experience much more inclusive and enjoyable. Because of this, I now prefer Zepto for shopping over other platforms.	Personalization by treating the uniqueness of every customer can be a critical factor in creating brand loyalty.		Mindful personalisation

Grounding the Consumer Expectations	R1 (F)	If I casually mention something or search for a product just once, I immediately see ads on all apps. It feels like the phone is listening 24/7. Though I can turn off the mic, that shouldn't be my job—it's intrusive and frustrating.	Resistance to excessive personalisation	Privacy Anxieties
	R3 (M)	Trust in automated systems depends on their accuracy, transparency, and reliability. However, concerns about data privacy and misleading recommendations make me skeptical. A balance is necessary to ensure efficiency without compromising the human touch in critical situations.	Apprehension about automated response capabilities	
	R2 (M)	AI chatbots are often ineffective for customer support because they provide pre-programmed responses and lack deep problem understanding. A human agent is usually necessary to comprehend and resolve complex issues.	Emotional disconnect and privacy concerns	Unintuitive Anthropos
	R10 (F)	I would like to see smarter AI support systems with better contextual understanding. AI-powered chatbots should be more intelligent and capable of effectively resolving customer concerns.	Contextual insensitivity issues with an AI-driven support system	
	R4 (F)	Businesses need better research and profiling of customers before launching products. Instead of pushing products, they should study consumer needs and focus on sustainability. For example, they should offer smaller packaging options to reduce waste. Allowing consumers to purchase a mix of essential products within a defined budget creates long-term digital strategies beyond short-term sales. Sustainable consumerism is the key. Technology should be supportive, not extractive.	Frustration with irrelevant recommendations and algorithmic pushiness. Sustainability concerns	Expectation Misalignment
	R8 (F)	I prefer a balanced integration of AI and human interaction. Businesses should provide more user-friendly interfaces, including voice search options in regional languages, to enhance accessibility for a wider audience.	Barriers to inclusive and intuitive AI adoption	
	R20 (F)	First, provide more multilingual support. Many people, like my mother, struggle with English or interface changes. Also, improve customer support—make it more vigilant. Reduce the notification overload. Too many push notifications make you quit the app.	User experience barriers and customer frustration in AI-driven systems	Tech Perimeters

Source: Authors' Own Work

Conceptual Construct with GTA

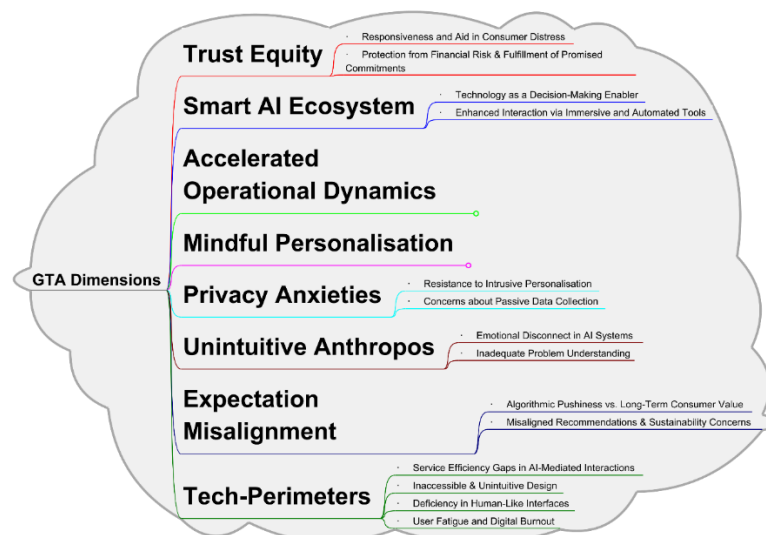


Figure. 6: GTA Dimensions and Conceptual Construct

(Source: Authors' Own Work)

The emergence of Trust-equity, Smart-AI Ecosystem, Accelerated Operational Dynamics, and Mindful Personalization as positive theoretical dimensions in GTA highlights the importance these dimensions play in enhancing business-consumer relationships by promoting efficiency, transparency, and strategic advantages. In contrast, the dimensions of Privacy Anxieties, Unintuitive Anthropos, Expectation Misalignment, and Tech-Perimeters signify the shape of consumer expectations from the brands. Consumers experience skepticism and privacy anxieties over data confidentiality and security, particularly in AI-mediated environments that can control the mind-game, erode trust, and reduce engagement potential. Unintuitive Anthropos or the AI-driven assistants and bots that lack emotional intelligence or social cues capture the friction caused by non-human-like AI

interactions, leading to user frustration. Expectation misalignment reveals the gaps between what consumers want and what brand technology can deliver, potentially impacting perceived satisfaction value. Furthermore, tech-perimeters establish consumer tolerance and preferences limits, highlighting the importance of inclusivity, user-friendly interface design, and reducing algorithmic bias.

IMPLICATIONS AND LIMITATIONS

By using a powerful combination of VT and GTA, this study makes a novel contribution to the existing literature in a methodological sense. VT-Themes and GTA dimensions arising out of research can help understand how consumers utilize digital tools, and their resulting positive or negative experiences can provide valuable insights for behavioral analysis for both academics and managers. Managers can use these insights to help the development of more personalized, relevant, and consumer-friendly tech engagement strategies (Prentice & Nguyen 2020). Technologies such as AR/VR, IoT, AI-driven chatbots and virtual assistants, predictive algorithms, and social media platforms continue to redefine the brand-consumer relationship. Nonetheless, several behavioral issues, such as digital fatigue, perceived intrusiveness, trust, and security, are essential for nurturing digital consumer engagement and creating a Smart AI Ecosystem. Ensuring robust security and transparency in data handling can significantly improve consumer trust and enhance long-term interaction (Rajesh & Cathelina 2025). Additionally, as the red lines in the Voyant charts in the study indicate, companies must recognize and address the Privacy Anxieties to balance technological innovation with meaningful, empathetic human connections. The roadmap to successful tech-enabled engagement requires thoughtful integration of consumer concerns, blending automation with authenticity with Accelerated Operational Dynamics, which systematically identifies the customer priorities of smooth navigation and time saving. Building trust in tech-based interactions requires active measures to match brand offerings with customer expectations and emotional requirements (Hollebeek et al. 2024; Shuqair et al. 2024).

This study has limitations that future research can address. The research focused on respondents from major Indian cities, which may limit the applicability of the findings to consumers in smaller towns or rural areas. Urban consumers are often more familiar with digital interfaces and thus have different expectations and experiences than consumers in tier-two, tier-three cities, or rural regions where digital exposure is still evolving (Sindakis & Showkat 2024). Future research should include diverse geographical and socio-economic backgrounds to ensure broader applicability. Furthermore, this study primarily examines consumer perspectives. It does not incorporate the views of company managers or marketing professionals, who play a pivotal role in strategizing and implementing digital engagement tools. Including managerial insights could enrich the understanding of how businesses perceive the challenges and opportunities presented by tech adoption and how their goals align or conflict with consumer expectations (Poushneh, 2021).

FUTURE RESEARCH AND CONCLUSION

As technology continues to transform consumer-brand interactions, future studies must delve deeper into the evolving dynamics of these relationships. Continued research should investigate how consumer expectations evolve and how businesses can adapt to remain relevant, trustworthy, and responsive in this rapidly changing environment. Future inquiries could also explore how emerging technologies, such as generative AI, blockchain, and immersive virtual platforms, influence long-term engagement patterns and emotional quality with consumers. The interplay between technology, consumer interaction, and brand engagement represents a continuous area of exploration.

As consumers and marketers adapt to this evolving paradigm, it becomes crucial for brands to empower users by offering control, transparency, and Mindful Personalisation in their digital experiences. Prioritizing consumer autonomy and user-centric design will enhance loyalty and engagement (Yuksel et al. 2020; Srivastava et al. 2025). Nevertheless, technology alone cannot substitute for the emotional richness of human interactions. Human engagement is indispensable in scenarios requiring empathy, rapid resolution, and emotional intelligence (Larivière et al. 2025; Markovitch et al. 2024). A hybrid approach that blends the efficiency of digital tools with the warmth of human touch is most likely to create lasting brand trust and consumer satisfaction (Oshrat et al. 2022). Any brand's future success will depend on integrating these elements into a consumer-centered tech strategy.

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