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# The influence of chatbot social presence and media appeal on brand likability and usage intention: Evidence from Coffeehouse brands

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## ABSTRACT

Fast-food and coffee brands increasingly use artificial intelligence (AI) chatbots to enhance customer engagement. This study applies the stimulus–organism–response (SOR) model and uses and gratifications theory (UGT) to explore how chatbot gratification factors—social presence and media appeal—affect customers’ chatbot usage intention (CUI). Data from 373 U.S. participants with Starbucks chatbot experience were analyzed using structural equation modeling (AMOS). Results show that social presence and media appeal significantly influence CUI and affective commitment. However, affective commitment does not mediate these relationships, and brand likability does not moderate the effects of social presence or media appeal on CUI.


## KEYWORDS

Artificial intelligence; chatbot services; chatbot usage intention; coffeehouse brands; customer-brand relationships; media appeal; social presence

## Introduction

Chatbots are one of the most popular artificial intelligence (AI) applications. Chatbots are text-based conversational agents that utilize natural language (Skjuve et al., 2021). Many industrial and service sectors have relied on them to provide customer support, marketing, and entertainment services, among other services (Zhu et al., 2023). Powered by AI, they facilitate interactive messaging, enabling brands to communicate with their customers at any time and from anywhere (Cheng & Jiang, 2020). Indeed, the cost and time-saving characteristics of chatbots highlight an opportunity for brands to implement this technology, providing 24/7 customer service in real-time, such as information sharing or problem-solving (Adam et al., 2021; Sumarjan et al., 2023).

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Chatbots are commonly used in mobile applications and website text messaging, and this tool is frequently employed in the hospitality and tourism industry (Melián-González et al., 2021). For example, Domino's Pizza benefits from the chatbot's ease of use on platform X, which allows customers to chat and order pizza. Similarly, Starbucks customers can use AI-powered tools in the Starbucks app, such as the "My Starbucks Barista" chatbot, to share information, place orders, express their opinions, and engage with the brand (Tuzovic & Paluch, 2018). For this reason, Starbucks was selected as the case brand for this study. Due to its prominent role in integrating AI into customer interactions, Starbucks has positioned itself as a leader in digital customer experience. Innovations like "My Starbucks Barista," an AI-powered chatbot, and AI-driven features in the Starbucks Rewards program enable highly interactive and personalized customer communication (Tuzovic & Paluch, 2018). This makes Starbucks a relevant and compelling context for examining how chatbot features influence user commitment and behavioral intention. While chatbots are widely adopted, understanding the underlying motivations that drive user engagement is crucial for their successful implementation. Chatbots offer benefits such as 24/7 availability, instant replies, and personalized interactions, which enhance user satisfaction and engagement (Lee et al., 2024). These benefits reflect the psychological and emotional gratifications users seek from media and technology – an area well explained by Uses and Gratifications Theory (UGT) (Hong et al., 2025). Therefore, this study draws upon UGT as a foundational lens for understanding why individuals actively engage with specific technologies (Katz et al., 1973). In the context of chatbot interactions, UGT posits that users are not passive recipients but actively seek to fulfill personal needs for convenience, sociability, and engaging experiences (Lee et al., 2024). Within the UGT framework, two key gratification factors capture user motivations, such as social presence and media appeal. Social presence highlights the human-like, interactive qualities of chatbots, meeting users' social and relational needs (Adam et al., 2021). Media appeal focuses on engaging, aesthetically pleasing design, making interactions enjoyable and accessible, and enabling chatbots to reach customers in real-time, anywhere (Cheng & Jiang, 2020; Liu et al., 2016). Prior research shows that social presence and media appeal influence customers' intentions to use chatbots (Cheng & Jiang, 2020; Melián-González et al., 2021). However, the exact process by which these factors shape intention, through the internal perceptual state, remains unclear. Understanding how social presence and media appeal drive intention behavior is critical for brands facing issues with user compliance and sustained use (Adam et al., 2021), since effective chatbot design must consider both technical features and elements influencing human communication (Gnewuch et al., 2022; Gupta et al., 2024; Yim, 2024).

To address this gap, this study integrates UGT (Katz et al., 1973) with the Stimulus – Organism – Response (SOR) model (Mehrabian & Russell, 1974) to

explain how chatbot features influence user behavior. In this integrated framework, chatbot gratification factors – social presence and media appeal – are conceptualized as the Stimuli (S) that impact the user’s internal affective state (O), specifically affective commitment, which in turn determines the behavioral Response (R): chatbot usage intention (CUI). In summary, we explicitly propose that social presence and media appeal (S) affect affective commitment (O), and this commitment, in turn, shapes CUI (R). This model clarifies the relationships among these key constructs and highlights the emotional mechanism through which chatbot features influence behavioral intentions, addressing a key gap in prior research that often overlooks the internal affective state. Furthermore, to add nuance, the model proposes that the influence of social presence and media appeal on affective commitment can vary depending on brand likability, which serves as a moderator.

By integrating UGT and SOR, this study presents a comprehensive theoretical framework that captures not only the motivational drivers (why users engage) but also the emotional-behavioral process (how engagement leads to usage) by making explicit the relationships among social presence, media appeal, affective commitment, and CUI. This dual-theoretical approach enables a more comprehensive understanding of the user’s experience with AI technologies. Accordingly, the primary objective is to investigate whether affective commitment mediates the relationship between a chatbot’s social presence, media appeal, and usage intention. A second objective is to examine whether brand likability moderates the relationship between social presence, media appeal, and CUI. The remainder of the paper discusses the theoretical background, presents a literature review, and develops hypotheses specifying these proposed relationships. Finally, we describe our method, present findings, and discuss the research contributions and implications.

## **Theoretical background**

### ***The SOR model – (Stimulus – Organism – Response)***

The SOR model serves as a theoretical framework for explaining how environmental stimuli (S) influence internal states (O) and subsequently shape consumer responses (R) (Mehrabian & Russell, 1974; Sai Vijay et al., 2025). In the context of AI chatbots in travel and tourism settings, the SOR framework has effectively explored the mechanisms through which various technological attributes shape user behavior. For example, Rafiq et al. (2022) made a unique contribution by identifying perceived usability, perceived intelligence, interactivity, and anthropomorphism as critical environmental stimuli that influence users’ attitudes toward AI chatbots, thereby shaping their adoption intentions. Their work extended the SOR model by highlighting the relevance of psychological perceptions

of AI traits in the tourism sector. Likewise, Zhu et al. (2023) further developed this framework by highlighting the dual role of human-computer interaction quality and information quality as key stimuli. Their findings underscore the importance of perceived usefulness as a mediating internal state that influences trust and purchase intentions in AI-driven travel services, thereby integrating information systems and tourism perspectives. Based on previous studies, chatbots' social presence and media appeal are conceptualized as external stimuli (S) within the SOR framework. This study investigates the organismic factor of affective commitment (O), an emotional attachment that users form toward the AI chatbot. As supported by prior research (Mehrabian & Russell, 1974; Sai Vijay et al., 2025), the SOR model posits that well-designed environmental stimuli can provoke internal emotional states, leading to behavioral responses. In this context, the chatbot's social presence and media appeal serve as stimuli that evoke affective commitment. This emotional connection functions as the organismic state that influences the response (R) – specifically, the CUI (see Figure 1). Therefore, affective commitment is proposed as the key mediating mechanism that explains how engaging, media-rich chatbot interactions impact user adoption in coffee shop and fast-food settings.

### ***Uses and gratifications theory (UGT)***

UGT offers a valuable lens for understanding chatbot interactions, as it highlights how users actively select media – such as AI-driven chatbots – to fulfill specific informational, social, or entertainment needs (Katz et al., 1973). In the realm of AI and chatbots, for instance, research has identified the motivations behind using mobile messaging apps (like WeChat) based on factors such as enjoyment (passing time), technology (media appeal), social interactions (social interaction and social presence), and utilitarian gratification (documenting and sharing information) (Gan & Li, 2018). Moreover, Balakrishnan and Griffiths (2017) examined YouTube addiction. They categorized gratifications into four main groups: content gratification (sharing information and self-documentation), process gratification (entertainment, passing time, and self-expression), technology gratification (media appeal and convenience), and social gratification. In the context of AI, these gratifications can be labeled as technological and social (Cheng & Jiang, 2020). Technology's attractiveness, ease of use, and the ability to engage in human-like interactions and personalization enhance the user experience (Xie et al., 2024). Individuals tend to be drawn to technologies that employ AI innovatively, such as understanding natural language and continuous learning, which fosters the feeling that the system is adapting to their needs (Cheng & Jiang, 2020; Hong et al., 2025).

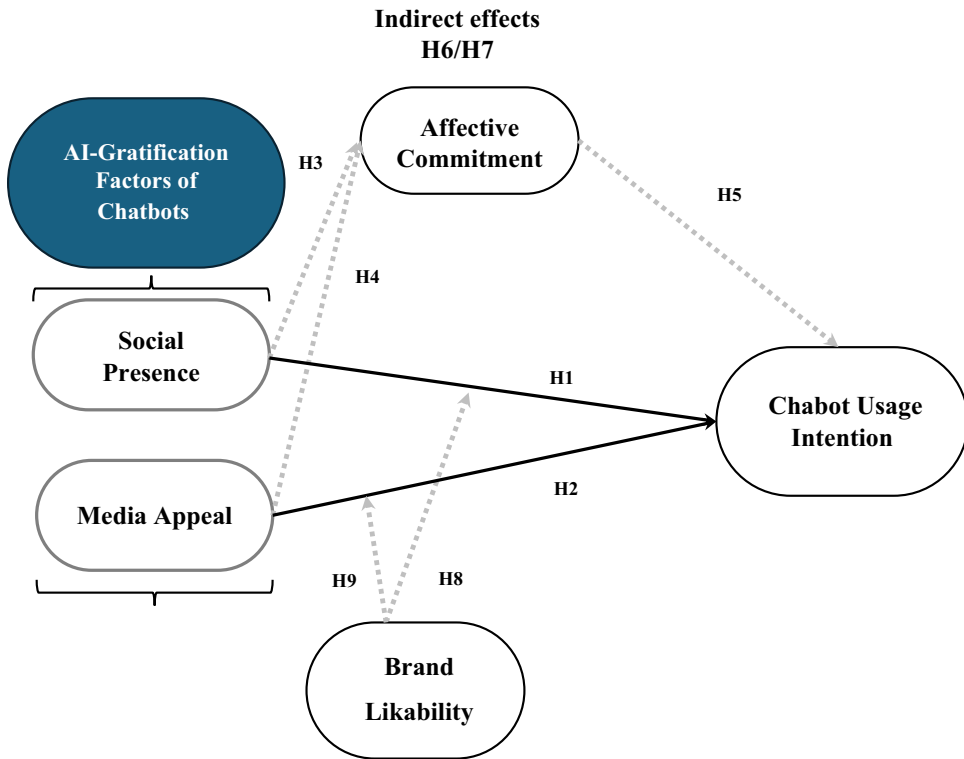


Figure 1. Model of the study.

## Literature review

### Artificial intelligence chatbot: concepts and definitions

The foundations of AI were laid by Alan Turing in 1950, when he proposed that machines could simulate human intelligence through what later became known as the Turing Test (Turing, 1950). The term “artificial intelligence” was formally coined by John McCarthy in 1956 at the Dartmouth Conference. This was built on Turing’s intellectual groundwork. Since then, AI has steadily integrated into everyday life through intelligent agents – autonomous software systems designed to perform tasks and interact with users (Rafiq et al., 2022; Wang et al., 2021). Among these agents are chatbots, software applications that simulate human conversation through text-based interfaces. Chatbots have evolved into prominent applications (UmstZein & Hundertmark, 2018). Landmark developments include ELIZA, developed by Joseph Weizenbaum in 1966. ELIZA mimicked a Rogerian psychotherapist using pattern matching and scripted responses. Despite its limitations, this demonstrated early potential for natural language interaction (Seeger et al., 2021). PARRY followed in the early 1970s and simulated a patient with paranoid schizophrenia. Later, ALICE (Artificial Linguistic Internet Computer Entity)

emerged in the 1990s and early 2000s. ALICE introduced a more advanced rule-based architecture utilizing AIML (Artificial Intelligence Markup Language), which enables more fluid and engaging interactions (Al-Amin et al., 2024).

The 2010s marked a significant turning point in the development of chatbots. Advances in natural language processing, machine learning, and AI technologies drove this change (Seeger et al., 2021). These developments enabled the creation of more sophisticated, context-aware chatbots, which quickly gained organizational interest. In 2016, platforms like Facebook Messenger hosted over 100,000 chatbots. This reflected a surge in chatbot deployment across various sectors, including tourism, telecommunications, healthcare, education, and customer service (Araujo, 2018; Rafiq et al., 2022; Seeger et al., 2021; Wang et al., 2021).

Today, chatbot technology streamlines communication, reduces operating costs, and enhances user experiences across various industries (Sumarjan et al., 2023). Service businesses are increasingly replacing human chat representatives with conversational software agents, also known as chatbots. These agents are designed to communicate with users using natural language and typically employ AI techniques (Gupta et al., 2024; Lohani Harjani & Batra, 2025). Despite growing adoption due to their efficiency and cost-effectiveness, AI chatbots often fail to meet consumer expectations. This reduces user compliance with their requests (Adam et al., 2021). AI-driven communication has proliferated among brands. Marketers now deploy chatbots to provide personalized responses and strengthen relationships (Aljarah et al., 2025).

### ***Artificial intelligence efforts of starbucks***

Coffeehouse brands like Starbucks have adopted AI and machine-learning technologies. Integrating AI and machine learning into the food industry streamlines operations, saving costs and significantly decreasing human errors (Zhang et al., 2022). For example, Starbucks introduced a chatbot in 2017—the Starbucks Barista chatbot – which was created to understand both text and voice commands while adapting to individual preferences, such as cup sizes and toasting options (Limna et al., 2021). Building on such innovations, Starbucks is also launching a feature for the Amazon Alexa platform that allows consumers to easily reorder their favorite products with voice commands directed at their Echo speaker or any other device powered by Alexa (Huang et al., 2022). The Starbucks Barista chatbot was designed to enable users to place orders through voice commands or the messaging interface (Tuzovic & Paluch, 2018).

The Barista chatbot demonstrates an ability to identify the customer's order, engage in further inquiry, and ultimately confirm the order while providing an anticipated timeframe for its completion (Tuzovic & Paluch, 2018). In addition

to streamlining ordering, Starbucks utilizes chatbots to facilitate the placement and delivery of orders. Balasudarsun et al. (2018) noted that customers can place coffee orders in their native language, providing detailed specifications regarding the desired coffee variety. These messages are then transmitted to the nearest Starbucks coffee shop and fulfilled. Furthermore, using the registered account information has facilitated the payment process. Expanding beyond ordering, Starbucks launched “My Starbucks Idea” as an innovative crowdsourcing platform that enables customers to actively submit ideas, share feedback, vote on suggestions, and discuss Starbucks products and services (Akcam, 2023). Customers can directly influence company decisions through this digital platform by proposing new menu items, store improvements, and service enhancements. The platform exemplifies Starbucks’ commitment to customer-centric innovation by transforming traditional feedback channels into an interactive community where customers actively participate in the company’s development.

### ***Social gratification (social presence)***

Social presence refers to how a communication medium enables users to perceive others as psychologically present (Tsai et al., 2021). While initially developed to explain interpersonal communication in mediated environments, the concept has since been extended to account for the emotional and relational dynamics that emerge in the absence of real human interaction (Schultze & Brooks, 2019). In AI chatbots, research has primarily focused on how visual and verbal cues contribute to users’ perceptions of social presence (Gnewuch et al., 2022). For example, Biocca et al. (2003) defined social presence as “the level of salience of individuals in communication and the consequential salience of interpersonal relationships” (p. 461), emphasizing both perceptual and relational dimensions. Empirical studies provide mixed insights into how social presence operates in human-AI interaction. In a controlled experiment, Diederich et al. (2020) examined how users respond to AI agents based on four key elements of social presence communication: human touch, personalness, human warmth, and human sensitivity. Interestingly, their findings suggest that excessive agent anthropomorphism may reduce perceptions of humanness and social presence – highlighting a paradox in chatbot design: while human-like features may enhance engagement, they can also trigger negative evaluations if perceived as artificial or inauthentic.

In contrast, a qualitative study by Skjuve et al. (2021) found that users developed emotional bonds with Replika, a social chatbot designed for companionship. Many participants described their relationship with Replika as resembling a friendship, noting that the chatbot’s proactive behavior – such as initiating conversations – significantly enhanced the sense of human contact and deepened the user experience. Despite these contributions, the literature does not

systematically integrate how social presence influences emotional and behavioral outcomes, particularly in pragmatic service settings such as the Coffeehouse context. This study addresses these gaps by examining how social presence, as a perceived emotional cue, influences affective commitment and CUI in chatbot-mediated service interactions.

### ***Technology gratification (media appeal)***

While the existing literature provides valuable insights into the role of chatbots and media appeal in customer service, many studies focus on descriptive summaries rather than critical evaluations or integrative perspectives. For instance, Cheng and Jiang (2020) highlight that AI systems, such as chatbots, are primarily used for customer care tasks, including disseminating product information, managing feedback, and resolving issues. These functions contribute to the chatbots' high media appeal. Similarly, Gan and Tan (2017) conceptualize technology gratification – closely linked to media appeal – as the ability of modern technologies to deliver timely, seamless interactions that fulfill users' informational and communicative needs. While these studies underscore the significance of media appeal, they often overlook deeper psychological or emotional mechanisms, such as affective commitment, that may mediate the relationship between media-rich interactions and user adoption. Moreover, the current literature lacks a critical synthesis of how media appeal operates in specific sectors, such as coffee shops and fast-food services, where immediacy and personalization are particularly valued. A notable gap is the limited exploration of how media appeal influences user behavior beyond surface-level interaction, primarily through emotional or attitudinal constructs. Cheng and Jiang (2020) finding – that media appeal is the most prominent form of gratification derived from chatbot use – raises important questions about the underlying mechanisms that convert gratification into behavior intentions. This study seeks to address this gap by applying the SOR framework to examine how media appeal (S) influences affective commitment (O), which in turn drives CUI (R) in the Coffeehouse sector.

### ***Affective commitment***

Commitment is the emotional drive and intention to sustain a relationship over time. People with a strong commitment to a virtual community are characterized by their deep emotional involvement with others (Bao & Wang, 2020). Commitment can be defined as the psychological inclination and deliberate determination to sustain a relationship or affiliation for an extended duration (Zhang et al., 2023). Relationship commitment refers to consumers' tendency to uphold their bond with a brand and their willingness to preserve this valued relationship (Choi & Ahn, 2023).

Individuals who show a strong commitment to an online community are characterized by their deep emotional connection with fellow members (Bao & Wang, 2020). Affective commitment is a type of commitment that stems from an emotional attachment, a sense of identity, and involvement with an organization.

### ***Chatbot usage intention***

Behavioral intention was defined by Jackson et al. (1997) as a measure of the strength of one's intention to perform a specific behavior. In scholarly discussions about technology, "intention to use" refers to a user's desire or willingness to use technology in the future (Teo & Zhou, 2014). Lee and Kim (2017) stated that the term usage intention is a coping response. Oliver (1999) argued that a positive correlation exists between an individual's intention to engage in a specific behavior and the likelihood of exhibiting that behavior. Additionally, intention is defined as an individual's subjective assessment of the likelihood of engaging in a particular behavior (Jiang et al., 2022). Previous research has demonstrated that behavioral intentions possess a high degree of predictive power in determining actual conduct (Akdoğan & Yilmaztürk, 2025; Ibrahim, 2025). Within the marketing field, it is widely acknowledged that behavioral intentions have a considerable influence on consumer purchasing patterns (Ahmad et al., 2025).

## **Research hypotheses**

### ***Social presence and chatbot usage intention***

Numerous studies have provided empirical evidence that social presence plays a vital role in individuals' intentions to use technology across settings (Gnewuch et al., 2022). For example, interaction with social chatbots has yielded favorable outcomes by positively influencing users' subjective well-being. Jin and Youn (2023) found that perceived human-likeness significantly enhances social presence and, in turn, users' intention to continue engaging with AI-powered chatbots in the fashion and tourism industries. Similarly, Guo et al. (2023) investigated social presence in online learning settings and found that intimate and immersive social factors enhance learning satisfaction, encouraging sustained engagement. These findings underscore the importance of designing socially engaging environments to foster ongoing user interaction.

Another study of 201 Portuguese chatbot users found that contentment, perceived utility, and subjective norm significantly predict ongoing chatbot usage (Silva et al., 2023), extending earlier evidence by highlighting specific predictors of continued use. Building on this,

prior research by Jung (2011) shows that a strong sense of presence increases users' intentions to continue engaging in social virtual environments. UGT further explains these positive connections: individuals use media, such as chatbots, to fulfill social and psychological needs, and when chatbots exhibit social presence, they satisfy the desire for social interaction, thereby increasing usage intentions. Based on this integrated understanding, we propose the following hypothesis:

**H1:** *There is a positive relationship between social presence and chatbot usage intentions.*

### **Media appeal and chatbot usage intention**

Media appeal refers to how chatbots facilitate quick and seamless interaction, enhancing users' communication experiences. This concept has been recognized as a key motivator behind digital engagement, such as blogging activity (Tsai et al., 2021). In a study conducted by Cheng and Jiang (2020), the impact of AI-driven chatbots on customer experience was investigated using a sample of 1,064 consumers who had interacted with chatbot services from 30 leading US brands, including Starbucks, eBay, Macy's, and HealthTap. The results revealed that both media appeal and social presence significantly influenced users' engagement with chatbot services offered by these brands. Similarly, Liu et al. (2023) analyzed data from 414 WeChat users. They found that attitude fully mediates process gratification (e.g., entertainment) and technology gratification (e.g., media appeal and social presence) in predicting users' intention to continue using the service. Their findings also demonstrated that attitude is directly shaped by both process gratification and technology gratification, highlighting the critical role of media appeal and social presence in shaping long-term user engagement.

Additionally, research in e-learning contexts indicates that learners' ability to engage in imagery processing positively influences their intention to keep using the platform (Rodríguez-Ardura & Meseguer-Artola, 2016). According to the UGT, users are drawn to media that meet their needs for entertainment, information, and interaction. Media appeal – such as engaging design and interactivity – can enhance user experience and satisfaction in chatbot contexts. When a chatbot is appealing, users are more likely to use it to fulfill their needs. Based on this, we propose the following hypothesis:

**H2:** *There is a positive relationship between media appeal and chatbot usage intentions.*

### ***Social presence and affective commitment***

In recent years, there has been a growing scholarly interest in social chatbots and the relationships individuals establish with them. Nevertheless, research remains limited regarding the developmental processes of human – chatbot relationships (HCRs) and their potential implications for the broader social context. Previous research has demonstrated that interaction with social chatbots can yield positive outcomes for users (Skjuve et al., 2021). These positive interactions can foster a sense of social presence, which is the feeling of being in a social situation with another person, or in this case, a chatbot. This sense of social presence is crucial for establishing and maintaining consumer relationships. Based on a survey of 491 participants, research in the United States suggests that social contact has a positive impact on customer engagement (Lin & Wu, 2023). This engagement, in turn, helps to develop brand intimacy, strengthen affective commitment, and increase behavioral and purchase intentions (Lin & Wu, 2023). While some studies have presented a nuanced view, such as Nadeem et al. (2020), who found that the direct links between social presence and commitment are not supported without a mediator like trust, their findings still affirm that social presence can positively impact commitment within online communities. The formation of trust, a direct result of social presence, ultimately leads to greater commitment and loyalty (Nadeem et al., 2020). Therefore, consistent with prior studies that show a pathway from social presence to positive relationship outcomes, the following hypothesis is proposed:

***H3: There is a positive relationship between social presence and affective commitment.***

### ***Media appeal and affective commitment***

Previous studies have investigated consumer commitment factors (Pillai et al., 2023). Digital technologies have significantly transformed business practices and consumer purchasing behavior (Nazir et al., 2023). According to research conducted by Cheng and Jiang (2020) and Li and Zhang (2023), chatbot service agents are more efficient than other communication methods, as they save time compared to speaking with human agents over the phone. Additionally, the study by Zhou et al. (2023) investigated the effects of different types of communicating agents, specifically chatbots versus human agents, on expected communication quality. Their results showed that online communication mediated by chatbots, rather than human agents, resulted in reduced expected communication quality. While efficiency and quality of communication are key, the media appeal of a service

channel also plays a crucial role in building consumer relationships. A communication agent's visual design, tone, and interactivity, such as a chatbot, can positively influence user emotions and perceptions of the brand.

Therefore, we set the following hypothesis:

**H4:** *There is a positive relationship between media appeal and affective commitment.*

### ***The mediation of affective commitment between media appeal and chatbot usage intention***

In recent years, many businesses have utilized AI-powered chatbots to facilitate service interactions that closely mimic human conversations across various customer interfaces (Tsai et al., 2021). Additionally, researchers have found that commitment can signal members' participation when studying users' activities in traditional brand communities (Bao & Wang, 2020). Data was collected from 308 hotel customers across different regions of Oman who had an online hotel booking experience (Nazir et al., 2023). This study integrates AI technology and consumer engagement on social media, revealing that AI technology has a positive influence on consumer engagement. The conversion rate also affects a "satisfying consumer experience," leading to increased consumer repurchase intentions (Nazir et al., 2023). An AI-powered chatbot with a conversational agent has been created to mimic human interaction and give customers a stronger sense of judgment or sensory appeal (Cheng & Jiang, 2020). These communication channels enable businesses to effectively connect with their customers, regardless of geographical location, device type, or digital platforms (Gupta et al., 2024). This enhanced accessibility improves customer satisfaction, ultimately fostering loyalty and commitment (Tsai et al., 2021). Moreover, customers may perceive the AI system as mysterious, making trust a crucial factor in its effectiveness (Gupta et al., 2024). This reliance on trust is contingent upon two key elements: trust and commitment, and these aspects are vital in fostering a relationship through social media (Li & Zhang, 2023). Therefore, we propose the following hypotheses:

**H5:** *There is a positive relationship between affective commitment and chatbot usage intentions.*

**H6:** *Affective commitment mediates the media appeal and chatbot usage intentions.*

### ***The mediation of affective commitment between social presence and chatbot usage intention***

The study by Sindhu and Bharti (2023) investigated the impact of social presence and hidden motivations on the effect of chatbot-delivered human-like signals on consumer buying intentions. However, the results did not support this, as the influence of social reality does not have a positive effect on purchase intentions. Another research study by Jiang et al. (2022), which examined the Chatbot, investigated how the continued use and purchase intentions of 442 Chinese retail consumers influenced their own continued use and purchase intentions. The findings showed that the social presence of chatbots has a significant and positive impact on retailers' overall experience and behavior choices. Moreover, social interactions can increase people's commitment to online communities (Bao & Wang, 2020). According to the SOR framework, affective commitment is proposed as the key mediating mechanism through which engaging and media-rich chatbot interactions (S) influence users' internal emotional states (O), ultimately leading to CUI in the coffee shop (R). Therefore, we propose the following hypotheses:

**H7:** *Affective commitment mediates the relationship between social presence and chatbot usage intentions.*

### ***The moderator of brand likability***

Brand likability refers to the assessment made by consumers regarding the positive attributes associated with a brand and the degree to which they favorably view the brand (Kirkby et al., 2023). This perception encompasses qualities such as being enjoyable, captivating, appealing, prestigious, flexible, and worthy of one's time and attention (Iskender et al., 2024; Kirkby et al., 2023). Kirkby et al. (2023) used the brand likability scale to examine consumers' perceptions of a brand's authenticity. The study also examined whether the source of the text – whether it is AI-generated or human-written – affects consumer evaluations. Notably, the authenticity of texts disclosed as AI-generated was not perceived as inferior to those identified as human-written. Moreover, the study of Tsai et al. (2021) examined the impact of anthropomorphic design and social presence communication strategies employed by brand chatbots on consumer evaluation outcomes. Using the SOR model by Ho and Chow (2023), the impact of AI on brand preference for retail banks in Hong Kong was investigated using a sample of 300 participants. The study revealed that AI marketing initiatives had a significant influence

on several key factors, including brand experience, likability, and repurchase intentions. Therefore, we propose the following hypotheses:

**H8:** *Brand likability moderates the relationship between social presence and chatbot usage intentions.*

**H9:** *Brand likability moderates the relationship between media appeal and chatbot usage intentions.*

## Research methodology

### Data collection

The study used a self-administered online survey sent to active Starbucks customers in the USA who were 18 or older and had interacted with Starbucks' chatbot service. Starbucks utilized this communication channel to enhance customer engagement through a Barista AI chatbot, a pioneering service offered by the company. The study employed a structured questionnaire with a seven-point Likert scale, ranging from "strongly disagree" (1) to "strongly agree" (7). To improve understanding, the survey began with real-life examples provided by the Starbucks chatbot, followed by an explanation of AI chatbot services and their purpose.

Screening criteria were used to ensure respondents were relevant. Eligible participants needed to be at least 18 years old, Starbucks customers, and have interacted with the Starbucks chatbot service within the past two months. Only participants meeting these criteria proceeded to the subsequent questionnaire sections. Data was collected through Amazon Mechanical Turk (MTurk), a platform known for its experimental efficiency. MTurk was well-suited for this study to access a diverse group of U.S.-based consumers quickly (Ibrahim et al., 2025). MTurk, widely used in behavioral and marketing research—especially among tech-savvy respondents familiar with digital tools like AI chatbots—proved efficient and cost-effective, helping to gather reliable data from participants with prior experience using Starbucks chatbots (Shaheen et al., 2024).

MTurk is widely used in hospitality research to collect data and test hypotheses (Shaheen et al., 2024), with past research suggesting that its reliability is comparable to that of traditional methods. Respondents with a minimum approval rate of 95% on MTurk were considered to ensure data quality (Shaheen et al., 2024). Additionally, to enhance data quality and ensure respondent attentiveness on MTurk, two attention check questions were embedded in the survey, as recommended by Aguinis et al. (2021). These checks help verify whether participants are reading and responding carefully,

which is essential for maintaining the reliability of online data collection. Clear instructions were also provided at the beginning of the survey to establish the researcher's credibility and encourage conscientious participation. Participants who failed both attention checks were excluded from the final analysis to mitigate the risk of inattention bias. The exclusion of 115 responses, attributed to failure, featured two attention checks, and respondents who failed these checks were excluded from the dataset. As a result, 373 valid responses were subjected to further examination.

### ***Variable definition and measurement***

Social presence was measured using five items adapted from Adam et al. (2021), focusing on users' perceptions of human warmth, sociability, and personal connection during interactions with the chatbot. Media appeal was assessed using three items adapted from Cheng and Jiang (2020), which captured the chatbot's visual attractiveness, interface engagement, and user enjoyment. Affective commitment was measured using four items adapted from Belanche et al. (2019), which evaluated users' emotional attachment and psychological connection to the chatbot. Lastly, CUI was measured using four items adopted from Melián-González et al. (2021), which reflected users' willingness and likelihood to continue engaging with the chatbot in the future.

## **Results**

### ***Validity, reliability, and common method bias***

Each measurement model necessitates three forms of validity: construct, convergent, and discriminant. Construct validity of the measurement model was evaluated using goodness-of-fit indices, following the approach outlined by Bagozzi and Edwards (1998). As recommended in the literature, the model fit indices were evaluated against the recommended cutoff values (Hu & Bentler, 1999). The measurement model's adherence to the recommended cutoff values indicated acceptable construct validity, with  $\chi^2 = 1.75 < 3$ , NFI = .94 > .90, CFI = .91 > .90, AGFI = .87 > .80, and RMSEA = .05 < .08. Table 1 provides a summary of the measurement model, indicating that all factors and items exhibit standardized factor loadings surpassing the threshold of .50, thereby meeting the acceptance criteria. The composite reliability values, surpassing the .70 threshold, and the average variance extracted (AVE) for all constructs exceeding the .50 level, affirm that convergent validity concerns are not evident in our measurements (Fornell & Larcker, 1981). To demonstrate discriminant validity, we examined whether measures of different study constructs varied significantly across the sample. Table 2 shows these results. For each construct, the square root of its AVE should be higher than its

**Table 1.** Reliability measures.

Variable	Item	Loading	Cronbach's
<b>Social presence (SPC)</b>	<b>SPC1</b>	.81	.90
	<b>SPC2</b>	.75	
	<b>SPC3</b>	.82	
	<b>SPC4</b>	.76	
	<b>SPC5</b>	.88	
<b>Media appeal (MAP)</b>	<b>MAP1</b>	.85	.92
	<b>MAP2</b>	.88	
	<b>MAP3</b>	.94	
<b>Affective commitment (AFEC)</b>	<b>AFEC1</b>	.85	.91
	<b>AFEC2</b>	.75	
	<b>AFEC3</b>	.86	
	<b>AFEC4</b>	.91	
<b>Chatbot usage intention (CUI)</b>	<b>CUI1</b>	.88	.87
	<b>CUI2</b>	.94	
	<b>CUI3</b>	.71	
	<b>CUI4</b>	.70	

**Note:** \* item removed.

**Table 2.** Discriminant validity.

	CR	AVE	SPC	MAP	AFEC	CUI
<b>SPC</b>	.901	.646	<b>.804</b>			
<b>MAP</b>	.922	.798	.205	<b>.893</b>		
<b>AFEC</b>	.910	.719	.168	.280	<b>.848</b>	
<b>CUI</b>	.885	.661	.163	.264	.073	<b>.813</b>

**Note:** \* $p \leq 0.05$ , \*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$ .

correlations with any other construct. Additionally, an AVE greater than .50 indicates good discriminant validity.

The study evaluated the reliability of the constructs using Cronbach's alpha and recommended a cutoff of .70 for acceptable reliability, which was utilized in this analysis (Nunnally, 1978). Cronbach's alpha values for the constructs ranged from .87 to .97 (see Table 1), indicating high reliability. This study acknowledged the potential for common method bias (CMB) due to the use of a single data source. To assess this, the researchers employed Harman's one-factor test, which combines all study constructs into one factor. Harman's one-factor test was conducted to evaluate CMB, which can occur when data for independent and dependent variables are collected from the same source, potentially inflating relationships. The test involves loading all items into an exploratory factor analysis (EFA) to determine if one factor explains the most variance. Our study showed the first unrotated factor accounted for less than 50%, indicating CMB is not a major concern (Podsakoff et al., 2003). While an unrotated single factor explained only 40.1% of the variance, indicating a value below the 50% threshold often used as a CMB indicator, this result suggests that CMB is not a significant concern in this study (Podsakoff et al., 2003).

**Hypothesis testing**

This study employed the structural equation modeling approach (SEM) using AMOS to examine the anticipated framework. As shown in Table 3, the goodness-of-model fits for all indicators reported acceptable values, in turn indicating a good model fit for the hypothesized structural model ( $\chi^2 = 2.6 < 3.00$ ;  $GFI = .98 > .90$ ;  $CFI = .98 > .90$ ;  $NFI = .97 > .90$ ;  $RMSEA = .07 < .08$ ).

The findings support hypotheses 1 and 2 (H1 and H2), indicating that social presence and media appeal are significantly associated with increased CUI (H1:  $\beta = .15, p < .01$ ; and H2:  $\beta = .26, p < .001$ , respectively). Hypotheses 3 and 4 receive support (H3:  $\beta = .23; p < .01$ ; H4:  $\beta = .25; p < .001$ ), implying that social presence and media appeal significantly and positively affect affective commitment. In addition, affective commitment emerged as a significant positive predictor of CUI (H5:  $\beta = .24; p < .001$ ). As a result, Hypothesis 5 receives support. The subsequent analysis tested the mediation hypotheses using the bootstrap mediation technique, with affective commitment acting as the mediator. A simple mediation analysis was conducted using the bootstrapping percentile method available in AMOS, with a recommended resample of 2000 and a 95% confidence interval. Table 3 shows the indirect relationship between social presence and CUI through affective commitment (H7:  $\beta = .01; p = .61$  (ns)), indicating the non-significant mediating effect.

**Table 3.** Hypotheses results.

		Relationship	βeta	SE	p	Results
<b>H1</b>	Social presence	Chatbot usage intention	.15	.0744	.0384**	Accepted
<b>H2</b>	Media appeal	Chatbot usage intention	.26	.0601	***	Accepted
<b>H3</b>	Social presence	Affective commitment	.23	.0760	.0024**	Accepted
<b>H4</b>	Media appeal	Affective commitment	.25	.0598	***	Accepted
<b>H5</b>	Affective commitment	Chatbot usage intention	.24	.0560	***	Accepted
<b>Mediation analysis</b>						
			Direct relationship		Indirect relationship	
Mediation analysis			βeta	βeta	p	Results
<b>H6:</b>	Media appeal – Affective commitment – Chatbot usage intention		.26	.00	.83 (ns)	Rejected
<b>H7:</b>	Social presence – Affective commitment – Chatbot usage intention		.15	.01	.61 (ns)	Rejected
<b>Moderator analysis</b>						
			βeta	SE	p	Results
<b>H8:</b>	Brand likability * Social presence – Chatbot usage intention		–.04	.05	.40 (ns)	Rejected
<b>H9:</b>	Brand likability * Media appeal – Chatbot usage intention		–.01	.05	.88 (ns)	Rejected

**Note:** \* $p \leq 0.05$ , \*\* $p \leq 0.01$ , \*\*\* $p \leq 0.001$ , ns: Non-significant.

Additionally, the results showed that the indirect relationship between media appeal and CUI through affective commitment is not significant (H6:  $\beta = .00$ ;  $p = .83$  (ns)). Thus, H6 and H7 are not supported. Although affective commitment significantly predicted CUI, the mediation analysis revealed that its indirect effects on the relationships between social presence/media appeal and CUI were insignificant. This indicates that affective commitment does not act as a mediator through which these AI gratification factors influence CUI. One possible reason is that users might develop immediate behavioral intentions based on the functional and experiential qualities of the chatbot (e.g., responsiveness, visual appeal), bypassing the need for a deeper emotional connection. In such cases, affective commitment may be limited or secondary in shaping usage decisions in fast-paced, utilitarian service settings, such as quick-service restaurants. The results of the moderating analysis show that the interaction effect of brand likability on the relationship between social presence and CUI is insignificant (H8:  $\beta = -.04$ ,  $p = .40$  (ns)) (see Table 3). Therefore, H8 is confirmed. In addition, the interaction effect of brand likability on the relationship between media appeal and CUI is insignificant (H9:  $\beta = -.01$ ,  $p = .88$  (ns)). Therefore, H9 is not supported. A non-significant moderation means that brand likability does not change or influence the strength or direction of the relationship between social presence (or media appeal) and CUI. In other words, regardless of how much users like the brand, the effect of social presence and media appeal on CUI remains consistent. The interaction effects were statistically insignificant, indicating that brand likability does not play a meaningful moderating role in these relationships.

## Discussion and implications

### *A summary of findings*

This research examined how social presence and media appeal influence affective commitment and CUI in the Coffeehouse industry. First, the findings reveal that social presence, or how real and human-like users perceive a chatbot to be, significantly increases CUI (H1), supporting prior studies (Bae, 2018; Cheng & Jiang, 2020; Lee et al., 2024). Building on this, the results show that media appeal – the attractiveness and design of the chatbot interface – also positively affects CUI (H2), aligning with previous research (Bae, 2018; Cheng & Jiang, 2020; Yu & Zhao, 2024). Chatbots' perceived realism and appealing presentations are essential in encouraging customer engagement.

Third, the synthesis of the results indicates that social presence and media appeal are strong predictors of affective commitment (H3 and H4). These findings align with the UGT, which posits that users actively seek media that fulfill specific psychological and social needs (Katz et al., 1973). Within this framework, social presence – the chatbot's human-like,

interactive qualities – satisfies users’ social and relational needs, while media appeal – the richness and attractiveness of the interface – caters to users’ desire for engaging and aesthetically pleasing interactions (Adam et al., 2021; Cheng & Jiang, 2020). When these gratifications are met, users are more likely to form emotional bonds with the chatbot service, reflected in higher affective commitment. This supports previous research (e.g., Lee et al., 2024), which shows that emotionally engaging media experiences enhance user-brand relationships, thereby reinforcing the theoretical relevance of UGT in explaining affective mechanisms in AI-mediated service environments.

Fourth, affective commitment was identified as a predictor of CUI. These support (H5) and suggest a direct and positive impact on CUI. In other words, the greater the emotion and commitment experienced by chatbot users, the more likely they are to share their positive experiences online and intend to use chatbot services (Song & Shin, 2024). This finding aligns with studies indicating a positive relationship between affective commitment and behavioral intention (Nazir et al., 2023).

Fifth, the findings show that, in utilitarian service contexts such as coffee shops and Coffeehouse sectors, AI gratification factors, media appeal, and social presence do not significantly influence CUI through affective commitment (H6 and H7). This contrasts with previous studies, which have found emotional bonding to be central to AI adoption (Bae, 2018; Cheng & Jiang, 2020). While prior research supports the SOR model, where stimuli elicit emotional responses that drive behavior, our results suggest that functional motivations (e.g., speed, convenience) may be more influential than emotional attachment in these contexts. This challenges the universality of the SOR framework and highlights contextual limitations of affective commitment as a mediating factor. The study thus provides a refined understanding of the SOR model, indicating that its effectiveness may depend on service type and customer expectations. It calls for future research to further explore these boundary conditions.

Sixth, the study revealed that brand likability does not significantly impact the relationship between AI gratification factors (media appeal and social presence) and CUI (H8 and H9). This finding contrasts with other studies that suggest a difference in the relationship between AI gratification and the customer-brand relationship. Regardless of brand likability, the intention to use chatbots increases consistently based on the media appeal and social presence of chatbot services. This may be because users prioritize the chatbot’s functionality and experience over their feelings about the brand. As a result, social presence and media appeal mainly drive the intention to use chatbots, regardless of how much users like the brand.

### ***Theoretical implications***

The study presents several theoretical implications in the AI context, including social presence and media appeal, which may stimulate the organism's affective commitment and influence CUI. First, the research confirms the application of the SOR framework in AI and chatbot services in the coffee shop context (Zhu et al., 2023). Therefore, the SOR model can explain that social presence and media appeal stimuli affect the organism's affective commitment, contributing to the development of CUI (Rafiq et al., 2022). The present study responds to suggestions that apply the SOR model in the context of AI and chatbot services (Gupta et al., 2024); hence, by testing the SOR model in the AI area, the current study has contributed to enhancing the overall understanding of these issues within the AI and Coffeehouse contexts (Lohani Harjani & Batra, 2025).

Second, previous research on AI in the tourism and coffee shops context has primarily focused on factors influencing customers' continuance intention to use chatbots for tourism (Rafiq et al., 2022), dimensions of chatbot quality (Li et al., 2021), and user experience (Chaves et al., 2022), as well as the emotional expressions of the chatbot. However, limited attention has been given to the combined effects of gratification factors as crucial antecedents to affective commitment and CUI (Cheng & Jiang, 2020). This gap is highlighted by the study of Li et al. (2021) and Zhang et al. (2022). In the context of AI chatbot services in travel, the lack of understanding about factors that strengthen customer-brand relationships, such as the context of chatbot intent, was highlighted. Furthermore, scholars have emphasized the need for more empirical research on how different gratifications from chatbot services, like social presence and media appeal, influence the enhancement of CUI, especially within the AI context (Cheng & Jiang, 2020). Our research addresses this gap by confirming that customers who perceive high levels of social and human connection during chatbot interactions, along with positive attributes and competence compared to other communication tools, are more likely to express an intention to use chatbots in the future.

Third, various scholars in AI-chatbot research have mainly concentrated on other behavioral factors influencing intention, such as performance expectancy, effort expectancy, habit, inconvenience, and attitude (Melián-González et al., 2021), but outside the fast-food and coffeehouse domain. Most current research on chatbots primarily examines how customers benefit from AI technology on online travel service websites and within travel agencies (Li et al., 2021). However, there is a notable scarcity of research addressing the role of AI chatbot services in enhancing customer experiences within the context of restaurants and coffeehouse businesses (Cheng & Jiang, 2020; Zhang et al., 2022). Investigating these relationships within the self-service technologies in

the coffeehouse context is considered novel and contributes to a more comprehensive understanding of CUI.

Fourth, this study contributes to the AI-services literature by incorporating affective commitment in examining the impact of gratifications obtained from chatbot services, such as social presence and media appeal, on CUI (Cheng & Jiang, 2020; Gupta et al., 2024). Therefore, this study contributes to a clearer understanding of the relationship with AI chatbot services by revealing the role of affective commitment in the relationship between social presence, media appeal, and CUI.

### ***Managerial implications***

This study offers clear, managerially applicable conclusions for managers and marketers concerned with optimizing AI chatbot adoption, particularly in the coffee shop and coffeehouse sectors. The study emphasizes that social presence and media appeal are the strongest predictors of customers' intention to utilize chatbots. As such, efforts should be invested in rendering chatbot services more human-like, interactive, and beneficial. To establish social presence, developers should design chatbots that simulate human interaction. This involves using warm, empathetic language, adopting responsive conversational modes, and greeting customers by name, according to their orders and preferences. Starbucks, for instance, can design a chatbot that not only remembers past drink orders but also offers new seasonal recommendations based on those flavors. Creating a coherent chatbot persona through the brand voice enables familiarity, comfort, trust, and repeated use. From a media perspective, chatbots need to clearly articulate their functional benefits, i.e., convenience, speed, and efficiency. This can be achieved through intuitive interfaces, utilizing visual elements (e.g., drink images, preparation videos), and enabling quick navigation for frequently asked questions. For example, Starbucks can leverage multimedia capabilities to explain drink options or visualize loyalty points throughout the chatbot experience, making it more usable and engaging. Interestingly, the study's findings suggest that affective commitment does not have a mediating function for chatbot usage, meaning that brands prioritizing emotional engagement must also focus on functional and interactional value. While emotional elements like humor and empathy contribute significantly to the user experience, they should not compromise the essential usefulness of the chatbot. Likewise, the lack of moderation by brand likability demonstrates that a well-designed chatbot can be an effective customer acquisition tool, appealing even to non-loyal or inexperienced users. A finding like this is highly relevant to competitive differentiation in competitive markets. To move to the next level, marketers can experiment with gamification strategies such as chatbot-driven contests, quizzes, or loyalty programs for frequent users. Incorporating branded cartoon avatars, emotive

animations, or voice capabilities adds entertainment value, particularly for younger users. Ultimately, continuous improvement through user feedback is crucial. Developers and marketers must continually monitor chatbot interactions, identify areas of friction, and refine features to meet evolving customer expectations. In doing so, brands like Starbucks can drive satisfaction and loyalty, and expand their footprint through innovative, AI-driven customer experiences.

### **Limitations and future studies**

This study has several limitations that need to be addressed. First, this study employed a quantitative methodology, using a survey to collect the study data. Future studies should be conducted qualitatively, employing a longitudinal design, systematic review, and bibliometric analysis to examine the area from multiple perspectives. Second, the study recruited individuals exclusively from MTurk, which restricts the generalizability of the study's findings. Future research could collect the data using different methods, such as face-to-face interviews. Third, the study investigated chatbot users only. Future research could compare robotic and human service providers to gain a more comprehensive understanding of consumer response. Fourth, to address concerns about confidentiality and privacy, our study did not record contributors' conversations with the chatbots. Future studies may record and control the conversation to enhance the credibility of the data. Generally, people interact with chatbots for matters they do not feel comfortable discussing with a human. Future studies could examine human warmth chatbot trust as a mediator.

Additionally, this study was conducted with only one brand, Starbucks. Future research should encompass various brands across multiple product categories, including coffee shops, education, hospitality, healthcare, tourism, and entertainment. Furthermore, our sample was gathered solely from Starbucks branches in the US. More research is necessary in other countries. Another limitation is that the sample comprised only users of the Starbucks Barista application. Therefore, the findings cannot be generalized. While Harman's one-factor test was employed to assess common method bias (CMB), it has some limitations. This simple diagnostic might overlook subtle or complex sources of bias and assumes bias manifests as a single dominant factor, which is not always the case. Thus, the absence of a single factor does not rule out CMB. Future studies should apply more robust methods, such as the marker variable approach or CFA with a common latent factor, for better bias detection and control. Lastly, our study did not examine customer differences; future research could explore individual differences to understand whether and how people develop these relationships, considering variations in personality, background, and experiences.

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## Declaration of generative AI in scientific writing

The author(s) used AI tools including ChatGPT (OpenAI), Gemini (Google), and Grok (xAI) to enhance the clarity, language, and readability of this manuscript. After utilizing these tools, the author(s) thoroughly reviewed, revised, and edited the content as needed and take full responsibility for the accuracy and integrity of the final version.

## References

- Adam, M., Wessel, M., & Benlian, A. (2021). AI-based chatbots in customer service and their effects on user compliance. *Electronic Markets*, 31(2), 427–445. <https://doi.org/10.1007/s12525-020-00414-7>
- Aguinis, H., Villamor, I., & Ramani, R. S. (2021). Mturk research: Review and recommendations. *Journal of Management*, 47(4), 823–837. <https://doi.org/10.1177/0149206320969787>
- Ahmad, P., Kumar, A., & Shekhar, R. (2025). If not more, then provide the same! Determining the reuse intention of food delivery apps. *Journal of Foodservice Business Research*, 1–26. <https://doi.org/10.1080/15378020.2025.2474298>
- Akcam, B. K. (2023). The impact of technology on the Starbucks experience. *Journal of Information Technology Teaching Cases*, 13(1), 104–110. <https://doi.org/10.1177/20438869221099305>
- Akdoğan, Ç., & Yılmaztürk, Y. (2025). Investigation of the relationship between the theory of consumption values and consumers' perceptions of mobile food delivery apps in the scope of technology acceptance model. *Journal of Foodservice Business Research*, 28(6), 1–39. <https://doi.org/10.1080/15378020.2025.2499767>
- Al-Amin, M., Ali, M. S., Salam, A., Khan, A., Ali, A., Ullah, A., & Chowdhury, S. K. (2024). History of generative artificial intelligence (AI) chatbots: Past, present, and future development. arXiv preprint arXiv: 2402.05122. <https://doi.org/10.48550/arXiv.2402.05122>
- Aljarah, A., Ibrahim, B., & López, M. (2025). In AI, we do not trust! The nexus between awareness of falsity in AI-generated CSR ads and online brand engagement. *Internet Research*, 35(3), 1406–1426. <https://doi.org/10.1108/INTR-12-2023-1156>

- Araujo, T. (2018). Living up to the chatbot hype: The influence of anthropomorphic design cues and communicative agency framing on conversational agent and company perceptions. *Computers in Human Behavior*, 85, 183–189. <https://doi.org/10.1016/j.chb.2018.03.051>
- Bae, M. (2018). Understanding the effect of the discrepancy between sought and obtained gratification on social networking site users' satisfaction and continuance intention. *Computers in Human Behavior*, 79, 137–153. <https://doi.org/10.1016/j.chb.2017.10.026>
- Bagozzi, R. P., & Edwards, J. R. (1998). A general approach for representing constructs in organizational research. *Organizational Research Methods*, 1(1), 45–87. <https://doi.org/10.1177/109442819800100104>
- Balakrishnan, J., & Griffiths, M. D. (2017). Social media addiction: What is the role of content in YouTube? *Journal of Behavioral Addictions*, 6(3), 364–377. <https://doi.org/10.1556/2006.6.2017.058>
- Balasudarsun, N. L., Sathish, M., & Gowtham, K. (2018). Optimal ways for companies to use Facebook Messenger chatbot as a marketing communication channel. *Asian Journal of Business Research*, 8(2), 1–17. <https://doi.org/10.14707/ajbr.180046>
- Bao, Z., & Wang, D. (2020). Examining consumer participation on brand microblogs in China: Perspectives from elaboration likelihood model, commitment-trust theory and social presence. *Journal of Research in Interactive Marketing*, 15(1), 10–29. <https://doi.org/10.1108/JRIM-02-2019-0027>
- Belanche, D., Cenjor, I., & Pérez-Rueda, A. (2019). Instagram stories versus Facebook wall: An advertising effectiveness analysis. *Spanish Journal of Marketing - ESIC*, 23(1), 69–94. <https://doi.org/10.1108/SJME-09-2018-0042>
- Biocca, F., Harms, C., & Burgoon, J. K. (2003). Toward a more robust theory and measure of social presence: Review and suggested criteria. *Presence Teleoperators and Virtual Environments*, 12(5), 456–480. <https://doi.org/10.1162/105474603322761270>
- Chaves, A. P., Egbert, J., Hocking, T., Doerry, E., & Gerosa, M. A. (2022). Chatbots language design: The influence of language variation on user experience with tourist assistant chatbots. *ACM Transactions on Computer-Human Interaction*, 29(2), 1–38. <https://doi.org/10.1145/3487193>
- Cheng, Y., & Jiang, H. (2020). How do AI-driven chatbots impact user experience? Examining gratifications, perceived privacy risk, satisfaction, loyalty, and continued use. *Journal of Broadcasting and Electronic Media*, 64(4), 592–614. <https://doi.org/10.1080/08838151.2020.1834296>
- Choi, T. R., & Ahn, J. (2023). Roles of brand benefits and relationship commitment in consumers' social media behavior around sustainable fashion. *Behavioral Sciences*, 13(5), 386. <https://doi.org/10.3390/bs13050386>
- Diederich, S., Brendel, A. B., & Kolbe, L. M. (2020). Designing anthropomorphic enterprise conversational agents: S. Diederich, et al. *Business & Information Systems Engineering*, 62(3), 193–209.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, 18(3), 382. <https://doi.org/10.1177/002224378101800313>
- Gan, C., & Li, H. (2018). Understanding the effects of gratifications on the continuance intention to use WeChat in China: A perspective on uses and gratifications. *Computers in Human Behavior*, 78, 306–315. <https://doi.org/10.1016/j.chb.2017.10.003>
- Gan, C., & Tan, C.-W. (2017). Understanding mobile social media usage: Uses and gratification expectancy model.
- Gnewuch, U., Morana, S., Adam, M. T. P., & Maedche, A. (2022). Opposing effects of response time in human-chatbot interaction: The moderating role of prior experience. *Business &*

- Information Systems Engineering*, 64(6), 773–791. <https://doi.org/10.1007/s12599-022-00755-x>
- Guo, Q., Zeng, Q., & Zhang, L. (2023). What social factors influence learners' continuous intention in online learning? A social presence perspective. *Information Technology and People*, 36(3), 1076–1094. <https://doi.org/10.1108/ITP-02-2021-0151>
- Gupta, R., Nair, K., Mishra, M., Ibrahim, B., & Bhardwaj, S. (2024). Adoption and impacts of generative artificial intelligence: Theoretical underpinnings and research agenda. *International Journal of Information Management Data Insights*, 4(1), 100232. <https://doi.org/10.1016/j.jjime.2024.100232>
- Ho, S. P. S., & Chow, M. Y. C. (2023). The role of artificial intelligence in consumers' brand preference for retail banks in Hong Kong. *Journal of Financial Services Marketing*, 29(2), 0123456789. <https://doi.org/10.1057/s41264-022-00207-3>
- Hong, J. W., Fischer, K., Kim, D., Cho, J. H., & Sun, Y. (2025). I am not your typical chatbot: Hedonic and utilitarian evaluation of open-domain chatbots. *International Journal of Human-Computer Interaction*, 41(14), 8963–8974. <https://doi.org/10.1080/10447318.2024.2416016>
- Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal*, 6(1), 1–55.
- Huang, A., Chao, Y., de la Mora Velasco, E., Bilgihan, A., & Wei, W. (2022). When artificial intelligence meets the hospitality and tourism industry: An assessment framework to inform theory and management. *Journal of Hospitality and Tourism Insights*, 5(5), 1080–1100. <https://doi.org/10.1108/JHTI-01-2021-0021>
- Ibrahim, B. (2025). Influence of Instagram fan pages on intention to revisit and recommend in beach tourism settings: The mediating effect of positive attitude. *Tourism and Hospitality Research*, 25(2), 180–193. <https://doi.org/10.1177/14673584231198418>
- Ibrahim, B., Hazzam, J., Qalati, S. A., & Attia, A. M. (2025). From perceived creativity and visual appeal to positive emotions: Instagram's impact on fast-food brand evangelism. *International Journal of Hospitality Management*, 128, 104140. <https://doi.org/10.1016/j.ijhm.2025.104140>
- Iskender, A., Sirakaya-Turk, E., Cardenas, D., & Hikmet, N. (2024). Restaurant patrons' intentions toward QR code menus in the US during COVID-19: Acceptance of technology adoption model (ATAM). *Journal of Foodservice Business Research*, 27(5), 497–522. <https://doi.org/10.1080/15378020.2022.2133518>
- Jackson, C. M., Chow, S., & Leitch, R. A. (1997). Toward an understanding of the behavioral intention to use an information system. *Decision Sciences*, 28(2), 357–389. <https://doi.org/10.1111/j.1540-5915.1997.tb01315.x>
- Jiang, K., Qin, M., & Li, S. (2022). Chatbots in retail: How do they affect the continued use and purchase intentions of Chinese consumers? *Journal of Consumer Behaviour*, 21(4), 756–772. <https://doi.org/10.1002/cb.2034>
- Jin, S. V., & Youn, S. (2023). Social presence and imagery processing as predictors of chatbot continuance intention in human-AI-interaction. *International Journal of Human-Computer Interaction*, 39(9), 1874–1886. <https://doi.org/10.1080/10447318.2022.2129277>
- Jung, Y. (2011). Understanding the role of sense of presence and perceived autonomy in users' continued use of social virtual worlds. *Journal of Computer-Mediated Communication*, 16(4), 492–510. <https://doi.org/10.1111/j.1083-6101.2011.01540.x>
- Katz, E., Blumler, J. G., & Gurevitch, M. (1973). Uses and gratifications research. *The Public Opinion Quarterly Oxford University Press on Behalf of the American Association for Public Opinion Research*, 37(4), 509–523. <https://doi.org/10.1086/268109>

- Kirkby, A., Baumgarth, C., & Henseler, J. (2023). To disclose or not disclose, is no longer the question - effect of AI-disclosed brand voice on brand authenticity and attitude. *Journal of Product & Brand Management*, 7(March), 1108–1122. <https://doi.org/10.1108/JPBM-02-2022-3864>
- Lee, J., Lee, D., & Lee, J. (2024). Influence of rapport and social presence with an ai psychotherapy chatbot on users' self-disclosure. *International Journal of Human-Computer Interaction*, 40(7), 1620–1631. <https://doi.org/10.1080/10447318.2022.2146227>
- Lee, S., & Kim, B. G. (2017). The impact of qualities of social network service on the continuance usage intention. *Management Decision*, 55(4), 701–729. <https://doi.org/10.1108/MD-10-2016-0731>
- Li, C. Y., & Zhang, J. T. (2023). Chatbots or me? Consumers' switching between human agents and conversational agents. *Journal of Retailing and Consumer Services*, 72(December 2022), 103264. <https://doi.org/10.1016/j.jretconser.2023.103264>
- Li, L., Lee, K. Y., Emokpae, E., & Yang, S.-B. (2021). What makes you continuously use chatbot services? Evidence from Chinese online travel agencies. *Electronic Markets*, 31(3), 575–599. <https://doi.org/10.1007/s12525-020-00454-z>
- Limna, P., Siripipatthanakul, S., & Phayaphrom, B. (2021). The role of big data analytics in influencing artificial intelligence (AI) adoption for coffee shops in Krabi, Thailand. *International Journal of Behavioral Analytics*, 1(2), 1–17.
- Lin, J. S. (., & Wu, L. (2023). Examining the psychological process of developing consumer-brand relationships through strategic use of social media brand chatbots. *Computers in Human Behavior*, 140(September 2022), 107488. <https://doi.org/10.1016/j.chb.2022.107488>
- Liu, H., Lee, K. T., Feng, H., & Bai, S. (2023). Exploring impact factors of mobile instant messenger users' continuance intention. *Ingenierie des Systemes d'Information*, 28(1), 85–96. <https://doi.org/10.18280/isi.280109>
- Lohani Harjani, J., & Batra, I. (2025). Antecedents of artificial intelligence in the food service industry: A meta-analytic review. *Journal of Foodservice Business Research*, 1–26. <https://doi.org/10.1080/15378020.2025.2491861>
- Mehrabian, A., & Russell, J. A. (1974). *An approach to environmental psychology*. the MIT Press.
- Melián-González, S., Gutiérrez-Taño, D., & Bulchand-Gidumal, J. (2021). Predicting the intentions to use chatbots for travel and tourism. *Current Issues in Tourism*, 24(2), 192–210. <https://doi.org/10.1080/13683500.2019.1706457>
- Nadeem, W., Khani, A. H., Schultz, C. D., Adam, N. A., Attar, R. W., & Hajli, N. (2020). How social presence drives commitment and loyalty with online brand communities? The role of social commerce trust. *Journal of Retailing and Consumer Services*, 55(March), 102136. <https://doi.org/10.1016/j.jretconser.2020.102136>
- Nazir, S., Khadim, S., Ali Asadullah, M., & Syed, N. (2023). Exploring the influence of artificial intelligence technology on consumer repurchase intention: The mediation and moderation approach. *Technology in Society*, 72(June 2022), 102190. <https://doi.org/10.1016/j.techsoc.2022.102190>
- Nunnally, J. C. (1978). *Psychometric theory*. McGraw-Hill Book Company.
- Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing*, 63(4\_suppl1), 33–44. <https://doi.org/10.1177/00222429990634s105>
- Pillai, R., Ghanghorkar, Y., Sivathanu, B., Algharabat, R., & Rana, N. P. (2023). Adoption of artificial intelligence (AI) based employee experience (EEX) chatbots. *Information Technology and People*. <https://doi.org/10.1108/ITP-04-2022-0287>

- Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879–903. <https://doi.org/10.1037/0021-9010.88.5.879>
- Rafiq, F., Dogra, N., Adil, M., & Wu, J.-Z. (2022). Examining consumer's intention to adopt AI-chatbots in tourism using partial least squares structural equation modeling method. *Mathematics*, 10(13), 2190. <https://doi.org/10.3390/math10132190>
- Rodríguez-Ardura, I., & Meseguer-Artola, A. (2016). What leads people to keep on e-Learning? An empirical analysis of users' experiences and their effects on continuance intention. *Interactive Learning Environments*, 24(6), 1030–1053. <https://doi.org/10.1080/10494820.2014.926275>
- Sai Vijay, T., Prashar, S., & Singh, S. (2025). Understanding e-retailer characteristics and post-purchase behaviour: Moderating role of confirmation. *International Journal of Retail & Distribution Management*, 53(3), 260–277. <https://doi.org/10.1108/IJRDM-03-2024-0106>
- Schultze, U., & Brooks, J. A. M. (2019). An interactional view of social presence: Making the virtual other “real”. *Information Systems Journal*, 29(3), 707–737. <https://doi.org/10.1111/ij.12230>
- Seeger, A. M., Pfeiffer, J., & Heinzl, A. (2021). Texting with human-like conversational agents: Designing for anthropomorphism. *Journal of the Association for Information Systems*, 22(4), 931–967. <https://doi.org/10.17705/1jais.00685>
- Shaheen, R., Aljarah, A., Ibrahim, B., Hazzam, J., & Ghasemi, M. (2024). Make it real, make it useful! The impact of AR social experience on brand positivity and information sharing. *British Food Journal*, 126(8), 3157–3176. <https://doi.org/10.1108/BFJ-12-2023-1118>
- Silva, F. A., Shojaei, A. S., & Barbosa, B. (2023). Chatbot-based services: A study on customers' reuse intention. *Journal of Theoretical & Applied Electronic Commerce Research*, 18(1), 457–474. <https://doi.org/10.3390/jtaer18010024>
- Sindhu, P., & Bharti, K. (2023). Influence of chatbots on purchase intention in social commerce. *Behaviour & Information Technology*, 1–22. <https://doi.org/10.1080/0144929X.2022.2163188>
- Skjuve, M., Følstad, A., Fostervold, K. I., & Brandtzaeg, P. B. (2021). My chatbot companion—a study of human-chatbot relationships. *International Journal of Human Computer Studies*, 149(January), 102601. <https://doi.org/10.1016/j.ijhcs.2021.102601>
- Song, S. W., & Shin, M. (2024). Uncanny valley effects on chatbot trust, purchase intention, and adoption intention in the context of e-Commerce: The moderating role of avatar familiarity. *International Journal of Human-Computer Interaction*, 40(2), 441–456. <https://doi.org/10.1080/10447318.2022.2121038>
- Spears, N., & Singh, S. N. (2004). Measuring attitude toward the brand and purchase intentions. *Journal of Current Issues & Research in Advertising*, 26(2), 53–66.
- Sumarjan, N., Mazlan, N., Azmi, N. S. S., Kamaruddin, M. A., & Salleh, A. (2023). The usage intention of chatbot technology in hospitality and tourism industry: Customer's perspective. *Journal of Tourism, Hospitality & Culinary Arts*, 15(1), 206–224.
- Teo, T., & Zhou, M. (2014). Explaining the intention to use technology among university students: A structural equation modeling approach. *Journal of Computing in Higher Education*, 26(2), 124–142. <https://doi.org/10.1007/s12528-014-9080-3>
- Tsai, W. H. S., Liu, Y., & Chuan, C. H. (2021). How chatbots' social presence communication enhances consumer engagement: The mediating role of parasocial interaction and dialogue. *Journal of Research in Interactive Marketing*, 15(3), 460–482. <https://doi.org/10.1108/JRIM-12-2019-0200>
- Turing, A. M. (1950). Computing machinery and intelligence. *Mind*, LIX(236), 433–460. <https://doi.org/10.1093/mind/LIX.236.433>

- Tuzovic, S., & Paluch, S. (2018). Conversational commerce - a new era for service business development? In M. Bruhn & K. Hadwich (Eds.), *Service business development: Strategien - innovationen - geschäftsmodelleband 1* (pp. 81–100). Springer Fachmedien. [https://doi.org/10.1007/978-3-658-22426-4\\_4](https://doi.org/10.1007/978-3-658-22426-4_4)
- UmstZein, D., & Hundertmark, S. (2018). Chatbots: An interactive technology for personalized communication and transaction. *IADIS International Journal on WWW/Internet*, 15(1), 96–109.
- Wang, J., Hwang, G. H., & Chang, C. Y. (2021). Directions of the 100 most cited chatbot-related human behavior research: A review of academic publications. *Computers and Education: Artificial Intelligence*, 2, 100023. <https://doi.org/10.1016/j.caeai.2021.100023>
- Xie, C., Wang, Y., & Cheng, Y. (2024). Does artificial intelligence satisfy you? A meta-analysis of user gratification and user satisfaction with AI-powered chatbots. *International Journal of Human-Computer Interaction*, 40(3), 613–623. <https://doi.org/10.1080/10447318.2022.2121458>
- Yim, M. C. (2024). Effect of ai chatbot's interactivity on consumers' negative word-of-mouth intention: Mediating role of perceived empathy and anger. *International Journal of Human-Computer Interaction*, 40(18), 5415–5430. <https://doi.org/10.1080/10447318.2023.2234114>
- Yu, S., & Zhao, L. (2024). Emojifying chatbot interactions: An exploration of emoji utilization in human-chatbot communications. *Telematics and Informatics*, 86, 102071. <https://doi.org/10.1016/j.tele.2023.102071>
- Zhang, B., Zhu, Y., Deng, J., Zheng, W., Liu, Y., Wang, C., & Zeng, R. (2022). “I am here to assist your tourism”: Predicting continuance intention to use ai-based chatbots for tourism. Does gender really matter? *International Journal of Human-Computer Interaction*, No Pagination Specified-No Pagination Specified. 39(9), 1887–1903. <https://doi.org/10.1080/10447318.2022.2124345>
- Zhang, X., Wan, J., & Jin, Y. (2023). Exploring the outcomes of customer engagement in DSR: The role of affective commitment and gamification affordance. *Sustainability*, 15(6), 5037. <https://doi.org/10.3390/su15065037>
- Zhou, Q., Li, B., Han, L., & Jou, M. (2023). Talking to a bot or a wall? How chatbots vs. human agents affect anticipated communication quality. *Computers in Human Behavior*, 143, 107674. <https://doi.org/10.1016/j.chb.2023.107674>
- Zhu, Y., Zhang, R., Zou, Y., & Jin, D. (2023). Investigating customers' responses to artificial intelligence chatbots in online travel agencies: The moderating role of product familiarity. *Journal of Hospitality & Tourism Technology*, 14(2), 208–224. <https://doi.org/10.1108/JHTT-02-2022-0041>

## Appendix.

Operationalization of the constructs used in this study (sources of variables and measurement items)

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### **Social presence** (Adam et al., 2021)

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- (1) There is a sense of human contact in the interaction with the chatbot of Starbucks
  - (2) There is a sense of personalness in the interaction with the chatbot of Starbucks
  - (3) There is a sense of sociability in the interaction with the chatbot of Starbucks
  - (4) There is a sense of human warmth in the interaction with the chatbot of Starbucks
  - (5) There is a sense of human sensitivity in the interaction with the chatbot of Starbucks
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### **Media appeal** (Cheng & Jiang, 2020)

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- (1) Using Starbucks' chatbot service is more efficient than other forms of communication.
  - (2) The Starbucks Chatbot service saves a tremendous amount of time
  - (3) Using Starbucks' service can save more time than making a call to a human agent.
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### **Chatbot usage intention** (Melián-González et al., 2021).

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- (1) I intend to use or continue using the Starbucks chatbot in the future.
  - (2) When required, I will use Starbucks' chatbot.
  - (3) I intend to use Starbucks' chatbot in the future.
  - (4) I think more and more people will use Starbucks' chatbot.
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### **Affective commitment** (Belanche et al., 2019)

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- (1) This Starbucks chatbot service means a lot to me.
  - (2) I am emotionally attached to Starbucks' chatbot service.
  - (3) I feel a sense of belonging to Starbucks' chatbot service.
  - (4) My relationship with this Starbucks chatbot service is very important to me.
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### **Brand likability** (Spears and Singh, 2004)

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The Starbucks brand is

- (1) Unappealing – Appealing
  - (2) Bad – Good
  - (3) Unpleasant – Pleasant Unfavorable
  - (1) Favorable Unlikeable – Likeable
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