Millennials' Perceptions and Adoption of Chatbots for Online Services in Puri District

Ms. Soumya Mohanty*, Dr. Manmath Nath Samantaray[1]
*Research Scholar, ASBM School of Business ASBM University, Bhubaneswar, India
[1]Professor, ASBM School of Business ASBM University, Bhubaneswar, India

Abstract: This research seeks to identify and examine the key determinants influencing millennials' intention to adopt AI-powered chatbots in online service contexts. Adopting a quantitative research design, the study utilized a structured survey instrument to collect data from a sample of 113 millennials, employing a convenience sampling technique. The theoretical framework for this study is grounded in the Technology Acceptance Model (TAM), which has been widely utilized to assess user acceptance of emerging technologies. This model was extended by incorporating two additional factors trust and social influence along with the core TAM constructs of perceived usefulness (PU) and perceived ease of use (PEOU).

The results of the study reveal that all four factors (PU, PEOU, trust, and social influence) significantly and positively influence millennials' intention to adopt AI chatbots in online services. Among these, trust was identified as the most prominent determinant, suggesting that perceptions of reliability and security play a critical role in the adoption decision-making process. The study's generalizability is limited by the sample size and the use of a convenience sampling method. Future research should expand the scope by employing a more diverse and representative sample that accounts for variables such as socio-cultural, technical, and socioeconomic factors.

Keywords: Chatbots, online Service, Electronic Commerce, Millennial, Technology Acceptance Model (TAM)

1. INTRODUCTION

The rapid digitization of various societal facets drives the global landscape. As eCommerce continues to experience exponential growth, characterized by an increasing volume of online customers and a rapidly evolving business environment, it has become essential for companies to differentiate themselves through enhanced customer service offerings (Vijayakumar, Bharathi et al., 2022). In this context, the role of chatbots has undergone a significant metamorphosis. Once a simple tool, chatbots have now become integral to organizations' strategies to maintain a competitive edge. In recent years, the integration of chatbots into the online customer experience has resulted in seamless interactions, so much so that customers often find it difficult to distinguish between engaging with an AI-powered chatbot and conversing with a human representative.

This shift is particularly noticeable among millennials, those born between 1981 and 1996, a generation that has grown up in the digital age and relies heavily on technology in both personal and professional spheres (De Cicco et al., 2020). As the first generation to come of age during the smartphone revolution, millennials exhibit a strong preference for personalized service, coupled with a low tolerance for delays. For them, real-time communication—such as live chats—has become the preferred mode of customer service, offering immediate and informal resolutions to their concerns. Chatbots, with their ability to provide personalized, on-demand service, are emerging as the ideal solution to meet these needs. This level of convenience and customization is unattainable through traditional customer service channels (Nichifor et al., 2021).

Despite the growing prominence of AI-driven chatbots, there remains a notable gap in quantitative research exploring the factors that influence consumer comfort and trust in interacting with such technologies (Sun et al., 2023). The present study seeks to address this gap by investigating the determinants that shape millennials' perceptions and adoption of AI chatbots in the customer service sector. Specifically, it aims to understand how factors such as perceived usefulness (PU), perceived ease of use (PEOU), trust, and social influence impact millennials' intentions to adopt AI chatbots (Charlton, 2013).

Chatbots, as AI-powered conversational agents, are increasingly replacing live chat representatives in many customer service interactions. Millennials, accustomed to interactive and user-friendly technologies, value the convenience, accessibility, and efficiency that chatbots provide (Chung et al., 2020).

In eCommerce, the rise of AI chatbots has significantly enhanced customer service by streamlining operations, addressing queries, and offering personalized suggestions, thus improving both customer satisfaction and operational efficiency (De Cicco et al., 2020).

This research employs the well-established Technology Acceptance Model (TAM) proposed by Davis (1986) to explore how PU, PEOU, trust, and social influence shape millennials' readiness to engage with AI chatbots. The study targets millennials—a demographic group that is the most tech-savvy and the largest consumer base in the market today (Lantos, 2014). By adopting a quantitative approach and surveying millennials who have interacted with chatbots for online services, the study aims to contribute to the growing body of literature on AI chatbot adoption in eCommerce.Ultimately, this research seeks to offer valuable insights into the factors driving chatbot adoption among millennials, providing both theoretical and practical recommendations for eCommerce businesses looking to optimize their AI-powered customer service solutions.

LITERATURE REVIEW

In today's dynamic landscape, modern organizations are increasingly confronted with a rapidly evolving environment (Setiawati et al., 2022), guided by advances in information and communication technology (Stojanov, 2019). As businesses strive to remain competitive, they are integrating digital touchpoints into the consumer journey, enhancing customer relationships and optimizing purchasing processes (Hagberg et al., 2016). In response to the rise of online shopping, companies are improving the online customer experience by incorporating AI-driven technologies such as personalized recommendation systems, virtual shopping assistants, and electronic service agents. Among these innovations, AI-powered chatbots stand out, transforming traditional service interfaces from human-centered to technology-centric models (Castillo et al., 2021). The increasing consumer preference for digital interactions has amplified the role of AI chatbots in business.

These virtual assistants are not only replacing human agents, but also creating meaningful, seamless connections with customers, offering personalized, real-time support (Selamat & Windasari, 2021). As artificial intelligence continues to evolve, the adoption of chatbots has surged, particularly among millennials, who prefer chat-based support for customer service (De Cicco et al., 2020). Understanding the psychological and emotional needs of young consumers, who form a significant portion of online shoppers, is essential for businesses aiming to harness the potential of AI chatbots. Millennials expect smooth, personalized digital interactions, and chatbots can meet these expectations by offering one-to-one conversations, product recommendations (Sidlauskiene et al., 2023), and facilitating transactions.

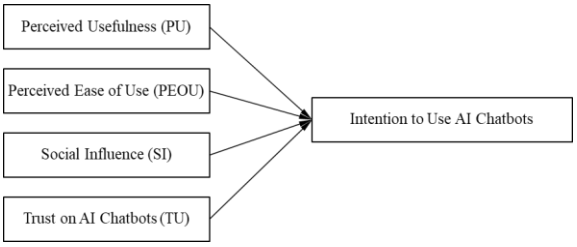
A nuanced understanding of millennial preferences, perceptions, and trust in automated systems is crucial for businesses looking to refine their chatbot strategies. This study aims to investigate the factors influencing millennials' interactions with AI chatbots, ultimately helping online enterprises improve customer satisfaction and boost sales. The Technology Acceptance Model (TAM), introduced by Davis (1986), is widely recognized as a robust framework for understanding user acceptance of new technologies (Liu et al., 2012). According to TAM, key factors such as perceived ease of use (PEOU), perceived usefulness (PU), and user attitudes toward technology, combined with outcome factors like behavioral intention and actual usage, help explain how and why users adopt new technologies (Davis, 1986). Among these, PU and PEOU are critical determinants that influence technology adoption, either directly or indirectly (Marangunić & Granić, 2015). PU refers to the degree to which users believe a technology will enhance their performance, while PEOU is the extent to which a technology is perceived as easy to use.

Over time, TAM has been expanded to incorporate additional constructs that better explain technology acceptance in specific contexts (Zhang et al., 2008). In this study, we aim to extend the basic TAM framework by adding factors that shed light on millennial consumers' intentions to use chatbots for online customer service. Taylor & Todd (1995) conducted a comparative evaluation of the Theory of Planned Behavior (TPB) (Ajzen, 1991) and the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), highlighting the influence of subjective norms—social expectations—on the intention to adopt technology. This influence was particularly strong among those with little prior exposure to the technology. As familiarity with technology grows, individuals become more tuned to societal expectations, which in

turn influences their technology usage decisions.

One of the most critical factors in determining the intention to use AI chatbots is trust. Numerous studies, including those by Gatzioufa & Saprikis (2022), have shown that trust plays a crucial role in users' acceptance of new technologies. Dahlberg et al. (2003) demonstrate that trust enhances the Technology Acceptance Model, suggesting that users are more likely to adopt new technologies if they trust the system. Trust influences both the direct and indirect factors of technology acceptance, including user attitudes toward online interactions (Pavlou, 2003). Since chatbots are still a novel technology for many, trust becomes a significant mediator in shaping users' attitudes and intentions towards their use (Kasilingam, 2020).

Furthermore, recent research has shown that attitudes toward technology do not always fully mediate the relationship between intention and actual usage (Karim & Islam, 2023). This study adopts a revised version of the TAM model focusing on the direct relationship between intention and usage. This approach aligns with TAM's foundational premise that intention is a strong predictor of actual use (Davis, 1989). By simplifying the research framework to concentrate on the factors influencing intention, we aim to provide actionable insights into how businesses can optimize their chatbot strategies to better serve the millennial consumer.



(proposed model)

Perceived Usefulness (PU)

Perceived Usefulness (PU) is a key concept in understanding technology adoption, defined by Davis (1989) as the degree to which an individual believes that using a particular application system will enhance their performance, whether in their professional or personal life. Expanding on this, Ajzen (1991) and Rouibah et al. (2011) describe PU as the extent to which potential users perceive that utilizing a given information technology will lead to significant benefits. In their seminal work, Davis et al. (1992) defined PU as consumers' perceptions concerning the outcome of an experience, emphasizing the impact of these perceptions on technology adoption.Moreover, PU has been shown to directly influence user intention to engage with a system, as individuals are more likely to adopt technology they believe will improve their task performance (Ajzen, 1991; Chen et al., 2007). As a key predictor in the early stages of innovation adoption (Revels et al., 2010), PU is often seen as a crucial factor in driving technology acceptance, particularly when the technology is perceived as beneficial to the user's efficiency and effectiveness.In the context of AI-driven chatbots, PU remains an essential attribute. With the increasing integration of creative and innovative technologies in everyday life (Tan & Lim, 2023), these systems must demonstrate a clear and tangible benefit to users in order to facilitate adoption. In the case of chatbots, their primary function is to assist consumers by providing accurate, timely information that addresses user queries or resolves issues, thereby enhancing overall customer satisfaction and improving the efficiency of online interactions. Thus, the perceived usefulness of a chatbot is integral to its successful adoption and utilization by users.

Perceived Ease of Use (PEOU)

Perceived Ease of Use (PEOU), as defined by Davis (1989), refers to the extent to which a potential user expects that interacting with a system will require minimal effort. Venkatesh (2000) offers a similar perspective, describing PEOU as an individual's perception of the level of difficulty involved in learning and using the innovation. Expanding on this, Morosan (2012) explains that people are more likely to adopt a new technology if they perceive it as simple and easy to use. According to Davis et al. (1992), a system is considered useful if it simplifies the user experience, facilitating ease of use. An effective system is one that aligns with the user's intrinsic motivation to engage, making the experience seamless and intuitive. Rahi et al. (2018) emphasize that ease of use is a critical predictor of customer acceptance of technology, underscoring its importance in driving adoption. A user-friendly system is inherently more attractive, holding the potential to draw in consumers and encourage sustained use (Tan & Lim, 2023). For a chatbot system, it is therefore essential to incorporate features that are intuitive, easy to navigate, and user-centric, in order to enhance adoption and foster deeper engagement in the online environment. By reducing the cognitive load and effort required from users, a

chatbot can effectively encourage interaction and drive positive user experiences.

Social Influence (SI)

Social Influence (SI), as defined by Venkatesh et al. (2003), refers to the perceived pressure from significant others to adopt new technology. This study posits that the opinions of peers play a crucial role in technology acceptance, as individuals, driven by a desire for validation from respected circles, are often inclined to conform to the technology preferences of those around them. During the COVID-19 pandemic, there was a notable surge in the adoption of AI-driven business applications, including chatbots, as organizations rapidly embraced digital solutions to meet new demands (Gkinko & Elbanna, 2023). The commercial demand for chatbots remains strong, driven by their numerous benefits, prompting businesses to actively promote chatbot adoption among their customers (Xu et al., 2022).While Davis (1986) did not establish a direct link between social influence and technology usage, later research, including Addis's work, demonstrated that subjective norms, such as SI, have an immediate impact on users' intention to adopt new technology. Venkatesh & Davis (2000) and Venkatesh & Bala (2008) further expanded the Technology Acceptance Model (TAM), emphasizing the role of social influence in shaping technology adoption. According to their framework, the perceived usefulness of a technology mediates the influence of social norms on adoption decisions. In line with this, Gatzioufa & Saprikis (2022) found that social influence significantly impacts individuals' decisions to adopt and use chatbots, highlighting the powerful role of peer opinions and societal expectations in the acceptance of emerging technologies.

Trust in AI Chatbots

Previous research has consistently highlighted the critical role of trust in the adoption of new technologies (Dhagarra et al., 2020; Shahzad et al., 2019; Silva et al., 2023). Trust is fundamentally established when users believe their vulnerabilities will not be exploited during risky online interactions (Aljazzaf et al., 2010; Corritore et al., 2003), and is closely tied to concerns around privacy protection (Bhattacherjee, 2002). In e-commerce, trust plays a pivotal role in shaping user behavior, influencing whether to engage with online platforms (Gefen & Straub, 2003; Holsapple & Sasidharan, 2005). Trust is equally important in both human-to-human and human-to-computer interactions (Agarwal, 2021).In recent years, the role of trust in AI-powered chatbots has gained increasing attention. Unlike traditional non-AI technologies, AI-powered chatbots engage users through natural language processing, fostering a sense of social presence and friendliness that mimics human interaction (Koponen & Rytsy, 2020; Pizzi et al., 2021; Potdar et al., 2018). This human-like interaction enhances users' trust in the technology, as people tend to trust technologies that exhibit social presence (Ogonowski et al., 2014). Interestingly, users often find it difficult to distinguish between interactions with chatbots and real humans (Candello et al., 2017), perceiving chatbots as human-like entities (Nordheim et al., 2019). This phenomenon, known as “anthropomorphism”, further strengthens the emotional aspect of trust, as users tend to attribute human qualities to chatbots, enhancing their sense of connection and reliability (De Visser et al., 2016; Mostafa & Kasamani, 2022; Pizzi et al., 2021). Building on Eren’s (2016) work on the importance of trust in technology adoption, this study proposes that trust is a key determinant in shaping user satisfaction with chatbot services. By fostering a sense of security, privacy, and human-like interaction, trust significantly influences how users perceive and interact with chatbot technologies, ultimately affecting their overall satisfaction and willingness to adopt such services (Eren, 2021).

METHODOLOGY

Population and Sampling

The research focused on the millennial demographic, defined as individuals aged 28 to 43, residing in Puri district, with prior knowledge of chatbots. The study employed convenience sampling, a non-probability sampling technique where participants are selected based on their ease of access or availability to the researcher (Bryman & Bell, 2015). The final sample size consisted of 113 participants.

Data source and collection

This study collected primary data to obtain accurate and relevant information for the research objectives. According to Hox and Boeije (2004), primary data refers to data collected specifically for the study's focus, contributing new insights. The research employed a cross-sectional survey design, using self-administered questionnaires. Non-probabilistic convenience sampling was employed to select participants, targeting millennials with prior

knowledge of chatbots. Participants were recruited through various channels, including social media platforms (LinkedIn, Facebook, WhatsApp), online forums, email, and in-person meetings. While this approach provided access to the target demographic, the study acknowledges the potential for selection bias inherent in convenience sampling.

Questionnaire development

Data for this study were collected using a standardized questionnaire that employed a 5-point Likert scale (Likert, 1932), ranging from 1 = "Strongly Disagree" to 5 = "Strongly Agree." The questionnaire was structured into two sections. The first section collected demographic information from the participants, while the second section measured key variables, including Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Social Influence (SI), and Trust (TRUST). This design facilitated the systematic collection of both participant characteristics and attitudinal responses related to the study's focus on chatbot perceptions.

RESULTS AND DISCUSSION

Reliability Analysis

Cronbach's alpha is commonly used by researchers to assess the reliability, or internal consistency, of measurement scales (Amirrudin et al., 2020). In this study, Cronbach's alpha values for all constructs exceeded the recommended threshold of 0.7, indicating a strong level of internal consistency and reliability in the measurement of the variables (Zeller, 2005).

Constructs	Cronbach's Alpha Value
PU	.901
PEOU	.879
SI	.857
TRUST	.889
OIUAC	.898

Regression Analysis

According to Petchko (2018), multiple regression is a preferred method for analyzing data as it allows researchers to assess the influence of multiple independent variables on a dependent variable and determine their relative significance. In this study, the coefficient of determination (R^2) was found to be 0.664, indicating that 66.4% of the variance in the dependent variable can be explained by the independent variables included in the model. Additionally, the adjusted R-squared value of 0.651 provides further evidence of the model's accuracy and robustness.

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	*F Change*	*df1*	*df2*	*Sig. F Change*
1	.815[a]	0.664	0.651	0.56365	0.664	53.274	4	108	0.000

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	67.702	4	16.926	53.274	<.001
	Residual	34.312	108	0.318		
	Total	102.014	112			

(ANOVA analysis)

DISCUSSION

Finally, we conclude that both Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) significantly contribute to explaining the variable Behavioral Intention (BI) to use chatbots. These findings suggest that individuals are more likely to adopt chatbots when they perceive them as useful and easy to use. In addition, the influence of Social Influence (SI) on millennials' intention to use chatbots was found to be significant. This aligns with previous studies (Kabir & Islam, 2021; Trapero et al., 2020; Melián-González et al., 2021), which demonstrate that individuals are more inclined to accept new technologies when they receive positive recommendations from peers and influencers. This phenomenon is further evidenced by

the adoption of popular smartphone applications such as Telegram and Twitter, which have gained significant traction due to favorable social influence (Kuberkar & Singhal, 2020). Moreover, according to Kuberkar and Singhal (2020), similar to other online services, consumers' eagerness to interact with a chatbot system is heavily influenced by their perceptions of the chatbot's trustworthiness, dependability, and accuracy. Despite various challenges, chatbots hold considerable potential for enhancing the quality of customer service (Zhou, 2023). Our findings suggest that, when implemented properly, chatbots can provide more value and support in the field of online service.

CONCLUSION

In the domain of online customer service, chatbots, though still in their developing stages (Kasilingam, 2020), present considerable potential as tools for improving customer service (Mohd Rahim et al., 2022). This study aims to explore the perceptions of millennials regarding the adoption of chatbots for customer service in online services. The findings revels the relevance of the Technology Acceptance Model (TAM) (Davis, 1989) in elaborating individual attitudes and intentions toward adopting emerging technologies.

Our model accounts for over 65% of the variance in Behavioral Intention (BI) in using chatbots, providing a framework for understanding the factors that guide chatbot adoption. Specifically, the study reveals that millennials' willingness to engage with online chatbots is primarily influenced by Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Social Influence (SI), and Trust. Among these, Trust and PEOU emerge as the most significant determinants. Millennials view AI chatbots as advantageous tools for simplifying online purchases experience. The user-friendly nature of chatbots, as reflected in PEOU, significantly increases their appeal, making them more likely to be adopted. Furthermore, Social Influence from peers, family, and colleagues plays a pivotal role in shaping their attitudes toward chatbot use, highlighting the importance of social networks in technology adoption. Trust is identified as a critical factor in determining millennials' readiness to embrace chatbots.By understanding the key drivers of chatbot adoption, e-businesses can monitor their strategies to better align with consumer satisfaction and maximize the effectiveness of AI-driven customer service technologies.

REFERENCE

[1] Agarwal, S. (2021). Trust or no trust in chatbots: A dilemma of millennial. In Cognitive Computing for Human-Robot Interaction: Principles and Practices. https://doi.org/10.1016/B978-0-323-85769-7.00007-0

[2] Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior 1. Journal of Applied Social Psychology, 32(4), 665-683.

[3] Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. Human behavior and emerging technologies, 2(4), 314-324.

[4] Aljazzaf, Z. M., Perry, M., & Capretz, M. A. (2010, September). Online trust: Definition and principles. In 2010 Fifth International Multi-conference on Computing in the Global Information Technology (pp. 163-168). IEEE.

[5] Bhattacherjee, A. (2002). Individual trust in online firms: Scale development and initial test. Journal of Management Information Systems,19(1). https://doi.org/10.1080/07421222.2002.11045715

[6] Candello, H., Pinhanez, C., & Figueiredo, F. (2017, May). Typefaces and the perception of humanness in natural language chatbots. In Proceedings of the 2017 Chi Conference on human factors in Computing Systems (pp. 3476-3487).

[7] Castillo, D., Canhoto, A. I., & Said, E. (2021). The dark side of AI-powered service interactions: Exploring the process of co-destruction from the customer perspective. The Service Industries Journal, 41(13-14), 900-925.

[8] Chen, Q., Chen, H. M., & Kazman, R. (2007). Investigating antecedents of technology acceptance of initial eCRM users beyond generation X and the role of self-construal. Electronic Commerce Research, 7(3–4). https://doi.org/10.1007/s10660-007-9009-2

[9] Chung, M., Ko, E., Joung, H., & Kim, S. J. (2020). Chatbot e-service and customer satisfaction regarding luxury brands. Journal of Business Research, 117. https://doi.org/10.1016/j.jbusres.2018.10.004

[10] Corritore, C. L., Kracher, B., & Wiedenbeck, S. (2003). On-line trust: Concepts, evolving themes, a model. International Journal of Human Computer Studies, 58(6).

https://doi.org/10.1016/S1071-5819(03)00041-7

[11] Davis, F. D. (1986). A technology acceptance model for empirically testing new end-user information systems: Theory and results [Dissertation]. Doctoral Dissertation, Massachusetts Institute of Technology. http://hdl.handle.net/1721.1/15192

[12] Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly: Management Information Systems, 13(3). https://doi.org/10.2307/249008

[13] Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace 1. Journal of applied social psychology, 22(14), 1111-1132.

[14] De Cicco, R., Silva, S. C., & Alparone, F. R. (2020). Millennials' attitude toward chatbots: an experimental study in a social relationship perspective. International Journal of Retail & Distribution Management, 48(11), 1213-1233.

[15] De Visser, E. J., Monfort, S. S., McKendrick, R., Smith, M. A., McKnight, P. E., Krueger, F., & Parasuraman, R. (2016). Almost human: Anthropomorphism increases trust resilience in cognitive agents. Journal of Experimental Psychology: Applied, 22(3), 331.

[16] Eren, B. A. (2021). Determinants of customer satisfaction in chatbot use: evidence from a banking application in Turkey. International Journal of Bank Marketing, 39(2), 294-311.

[17] Gatzioufa, P., & Saprikis, V. (2022). A literature review on users' behavioral intention toward chatbots' adoption. Applied Computing and Informatics. https://doi.org/10.1108/ACI-01- 2022-0021

[18] Gefen, D., & Straub, D. (2003). Managing user trust in B2C e-services. e-Service, 2(2), 7-24.

[19] Gkinko, L., & Elbanna, A. (2023). Designing trust: The formation of employees' trust in conversational AI in the digital workplace. Journal of Business Research, 158. https://doi.org/10.1016/j.jbusres.2023.113707

[20] Graue, C. (2015). QUALITATIVE DATA ANALYSIS. International Journal of Sales, Retailing & Marketing, 4(9).

[21] Hagberg, J., Sundstrom, M., & Egels-Zandén, N. (2016). The digitalization of retailing: an exploratory framework. International Journal of Retail & Distribution Management, 44(7), 694-712.

[22] Holsapple, C. W., & Sasidharan, S. (2005). The dynamics of trust in B2C e-commerce: a research model and agenda. Information Systems and e-business Management, 3, 377-403.

[23] Kabir, M. R., & Islam, S. (2022). Behavioural intention to purchase organic food: Bangladeshi consumers' perspective. British Food Journal, 124(3), 754-774.

[24] Karim, K. S., Islam, M. E., Ibrahim, A. M., Pan, S. H., & Rahman, M. M. (2023). Online marketing trends and purchasing intent: advances in customer satisfaction through PLS-SEM and ANN approach. Advances in Decision Sciences, 27(4), 1-31.

[25] Kasilingam, D. L. (2020). Understanding the attitude and intention to use smartphone chatbots for shopping. Technology in Society, 62. https://doi.org/10.1016/j.techsoc.2020.101280

[26] Koponen, J. P., & Rytsy, S. (2020). Social presence and e-commerce B2B chat functions. European Journal of Marketing, 54(6), 1205-1224.

[27] Kuberkar, S., & Singhal, T. K. (2020). Factors influencing adoption intention of ai powered chatbot for public transport services within a smart city. International Journal on Emerging Technologies, 11(3).

[28] Lantos, G. P. (2014). Marketing to Millennials: Reach the Largest and Most Influential Generation of Consumers Ever. Journal of Consumer Marketing, 31(5), 401–403. https://doi.org/10.1108/JCM-03-2014-0909

[29] Liu, H., & Zhou, L. (2012). Predicting young Chinese consumers' mobile viral attitudes, intents and behavior. Asia Pacific Journal of Marketing and Logistics, 24(1), 59-77.

[30] Marangunić, N., & Granić, A. (2015). Technology acceptance model: a literature review from 1986 to 2013. Universal Access in the Information Society, 14(1), 81–95. https://doi.org/10.1007/s10209-014-0348-1

[31] Mostafa, R. B., & Kasamani, T. (2022). Antecedents and consequences of chatbot initial trust. European journal of marketing, 56(6), 1748-1771.

[32] Nichifor, E., Trifan, A., & Nechifor, E. M. (2021). Artificial intelligence in electronic commerce: Basic chatbots and the consumer journey. Amfiteatru Economic, 23(56), 87-101.

[33] Nordheim, C. B., Følstad, A., & Bjørkli, C. A.

(2019). An Initial Model of Trust in Chatbots for Customer Service - Findings from a Questionnaire Study. Interacting with Computers, 31(3). https://doi.org/10.1093/iwc/iwz022

[34] Ogonowski, A., Montandon, A., Botha, E., & Reyneke, M. (2014). Should new online stores invest in social presence elements? The effect of social presence on initial trust formation. Journal of Retailing and Consumer Services, 21(4), 482-491.

[35] Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. International Journal of Electronic Commerce, 7(3). https://doi.org/10.1080/10864415.2003.11044275.

[36] Revels, J., Tojib, D., & Tsarenko, Y. (2010). Understanding consumer intention to use mobile services. Australasian Marketing Journal, 18(2), 74-80.

[37] Potdar, V., Joshi, S., Harish, R., Baskerville, R., & Wongthongtham, P. (2018). A process model for identifying online customer engagement patterns on Facebook brand pages. Information Technology & People, 31(2), 595-614.

[38] Rouibah, K., Abbas, H., & Rouibah, S. (2011). Factors affecting camera mobile phone adoption before e-shopping in the Arab world. Technology in Society, 33(3-4), 271-283.

[39] Sidlauskiene, J., Joye, Y., & Auruskeviciene, V. (2023). AI-based chatbots in conversational commerce and their effects on product and price perceptions. Electronic Markets, 33(1). https://doi.org/10.1007/s12525-023-00633-8

[40] Selamat, M. A., & Windasari, N. A. (2021). Chatbot for SMEs: Integrating customer and business owner perspectives. Technology in Society, 66, 101685.

[41] Setiawati, R., Eve, J., Syavira, A., Ricardianto, P., & Endri, E. (2022). The Role of Information Technology in Business Agility: Systematic Literature Review. Calitatea, 23(189), 144-149.

[42] Sun, W., Yan, L., Ma, X., Wang, S., Ren, P., Chen, Z., ... & Ren, Z. (2023). Is ChatGPT good at search? investigating large language models as re-ranking agents. arXiv preprint arXiv:2304.09542.

[43] Tan, P. K., & Lim, C. M. (2023). Factors That Affect User Satisfaction of Using E-Commerce Chatbot: A Study on Generation Z. International Journal of Business and Technology Management. https://doi.org/10.55057/ijbtm.2023.5.1.23

[44] Vallerand, R. J., Deshaies, P., Cuerrier, J. P., Pelletier, L. G., & Mongeau, C. (1992). Ajzen and Fishbein's theory of reasoned action as applied to moral behavior: A confirmatory analysis. Journal of personality and social psychology, 62(1), 98.

[45] Venkatesh, V., & Bala, H. (2008). Technology acceptance model 3 and a research agenda on interventions. Decision Sciences, 39(2). https://doi.org/10.1111/j.1540-5915.2008.00192.x

[46] Venkatesh, V., & Davis, F. D. (2000). Theoretical extension of the Technology Acceptance Model: Four longitudinal field studies. Management Science, 46(2). https://doi.org/10.1287/mnsc.46.2.186.11926

[47] Vijayakumar, R., & Bharathi, A. D. (2022). Prime Quasi-Ideals in Ternary Seminar Rings. Indian Journal of Science and Technology, 15(39), 2037-2040.

[48] Xu, Y., Zhang, J., & Deng, G. (2022). Enhancing customer satisfaction with chatbots: The influence of communication styles and consumer attachment anxiety. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.902782

[49] Zhang, J., & Mao, E. (2008). Understanding the acceptance of mobile SMS advertising among young Chinese consumers. Psychology & Marketing, 25(8), 787-805.

[50] Zhou, X. (2023). Chatbot Improves the Customer Service in Four Important Industries.

[51] Highlights in Science, Engineering and Technology,39. https://doi.org/10.54097/hset.v39i.6551