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The Impact of AI Chatbot and Brand Personality on Gen Z Consumer Behavior in Vietnamese SMEs

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KEYWORDS

AI Chatbot, brand positioning, brand personality, customer interaction, SMEs.

ABSTRACT

In the context rapid digital transformation, Vietnamese SMEs face the challenge of building strong brands that create emotional connections with customers. This study investigates the role of AI Chatbots in enhancing brand positioning and driving consumer behavior among Generation Z. Employing a quantitative approach with PLS-SEM, data were collected from 319 Gen Z respondents. The results indicate that key AI Chatbot functionalities - such as personalization, accuracy, and credibility - significantly influence brand perception. Moreover, customer attitude and satisfaction serve as crucial mediators between Chatbot features and brand image, reinforcing their strategic importance in brand management. Overall, the study confirms 20 out of 25 hypothesized relationships, demonstrating that investing in user-friendly interfaces and data-driven personalization strategies is essential to improve customer experience, satisfaction, and loyalty. Additionally, the findings suggest that SMEs should integrate AI-driven communication tools to optimize brand engagement and build long-term consumer trust. These insights provide valuable implications for businesses seeking to leverage AI Chatbots as a competitive advantage in the evolving digital marketplace.

1. Introduction

Small and medium-sized enterprises (SMEs) account for over 97% of all businesses in Vietnam, playing a crucial role in GDP growth, job creation, and fostering innovation (Bich, 2021). However, with limited resources and experience, SMEs are vulnerable to market fluctuations (Minh, 2022). Digital transformation, particularly the adoption of artificial intelligence (AI), offers an effective solution. Among these, AI chatbots have emerged as vital tools, automating customer service, reducing costs, and enhancing operational efficiency (Vu, 2022). Their ability to deliver personalized experiences makes them particularly suited to dynamic markets. With these benefits, Vietnamese SMEs can leverage the country's rapidly growing digital ecosystem to enhance their competitiveness.

Given the rapid digitalization of consumer behavior, the Vietnamese market presents a unique opportunity for AI-driven engagement strategies. As of 2024, the country has 78.44 million internet users and 72.7 million social media users (Kemp, 2024). Notably, 40% of the population belongs to Generation Z, a tech-savvy cohort known for its preference for fast, efficient, and highly personalized digital experiences (Pham, 2023). AI chatbots, capable of providing real-time, tailored interactions, align

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well with these expectations while also enabling brands to establish a distinctive digital presence. Beyond functional efficiency, AI chatbots contribute significantly to brand personality—the set of human characteristics associated with a brand (Aaker, 1997). Through interactive and engaging dialogues, chatbots serve as brand representatives, fostering emotional connections, trust, and customer loyalty (Verney & Poulain, 2018). For SMEs, leveraging AI chatbots presents a cost-effective means of strengthening brand positioning in a competitive digital landscape.

Although AI chatbots are increasingly popular, research on their role in brand personality positioning for SMEs in Vietnam, particularly with Gen Z, remains limited. To bridge this gap, this study - **The Impact of AI Chatbot and Brand Personality on Gen Z Consumer Behavior in Vietnamese SMEs** - examines how AI chatbots influence Gen Z consumer behavior and support brand positioning for Vietnamese SMEs.

2. Literature review

Based on previous studies, AI chatbots in customer interaction activities have been a prominent research topic. Johannsen (2018) conducted a qualitative study offering insights into commercial chatbot solutions to support customer interactions, categorizing and evaluating the effectiveness of chatbot solutions provided by various technology vendors. Following this, Islam and Dhir (2022) conducted a quantitative study to analyze the factors driving SMEs to adopt AI chatbots, particularly in improving customer communication and optimizing service processes. Both studies emphasize the applicability, driving factors, and benefits of AI chatbots in customer interaction and service optimization but do not address their role as a strategic tool for brand building. In contrast to the aforementioned studies, Verney & Poulain (2018) shed light on the role of chatbot personalization in building relationships between customers and brands, thereby enhancing customer empathy and loyalty. Youn & Jin (2022) explored the effects of one-sided interactions between humans and chatbots (parasocial interaction) and users' ideological perspectives (technopian or luddite) on AI chatbot-based customer relationship management (CRM) in the context of the "emotional economy". These two studies further clarify the factors demonstrating the personality traits of AI chatbots in strengthening brand-customer relationships. However, they do not delve deeply into how chatbots help SMEs position their brand personality. While these works have provided multifaceted perspectives on the application of AI chatbots in SMEs, there is still a lack of research focusing on AI chatbots and brand personality positioning in the context of SMEs in Vietnam. Most studies have primarily concentrated on areas such as improving customer service, optimizing purchasing processes, and enhancing user experiences (Chung et al., 2020). These studies have largely overlooked the role of AI chatbots in brand personality positioning, a critical factor in emotionally connecting with customers, as previously mentioned (Aaker, 1997). Building a brand personality is essential for SMEs to establish and maintain emotional connections with customers (Keller, 2019). In Vietnam, SMEs dominate the market, yet research on the application of AI chatbots remains limited, especially regarding their role in brand personality positioning and enhancing customer engagement. This presents a significant research gap. Therefore, this study aims to clarify how AI chatbots can contribute to supporting brand personality positioning, particularly in SMEs, where resources are often constrained (Wirtz et al., 2021). This identifies the first research gap.

The second research gap pertains to the lack of studies on the adoption of AI chatbots in SMEs. While AI chatbots have become increasingly popular, their application in small and medium-sized enterprises remains under-researched. A major challenge for SMEs in Vietnam is accessing and deploying AI technology. Most existing research on AI chatbots focuses on large or multinational companies with sufficient financial and technical resources to implement complex AI solutions (Troisi et al., 2021). In contrast, SMEs in developing countries, including Vietnam, face numerous barriers to adopting new technologies such as AI chatbots, including cost limitations, technical resource constraints, and a lack of expertise (Huang & Rust, 2021). This creates an important research gap on how SMEs in Vietnam can effectively adopt AI chatbots to position their brands with limited resources.

For these reasons, the study aims to contribute to the development of theories on technology and artificial intelligence in the fields of marketing and brand management.

3. Research methodology and specific model

3.1. Research methodology

The research was conducted in two phases. In the preliminary phase, secondary data was collected to develop hypotheses, build the research model, identify observable variables, and draft a measurement scale. Subsequently, in-depth interviews with experts in Communication were conducted to ensure the semantic accuracy of the observable variables in the measurement scale. Following this, the author conducted a pilot survey with 50 samples to evaluate the preliminary suitability of the measurement scale and make adjustments if necessary. A quantitative research method was employed to test the proposed model and hypotheses in the main research phase. According to Hair et al. (2017), the minimum sample

size should maintain a ratio of observations to measurement variables of at least 5:1, with an optimal recommendation of 10:1 or higher. With a total of 57 observable variables, 319 completed and valid questionnaires were collected for subsequent analysis. The survey targeted Generation Z individuals aged 18 to 25 who had experienced AI chatbot services at least once through SMEs. Data collection took place from December 2024 to January 2025. The data was gathered through Google Form surveys and direct interviews. Data analysis was conducted using Smart PLS software, which involved assessing the measurement model and the structural model.

3.2. Research model and Rationales for hypotheses development

3.2.1. The Impact of AI Chatbot on Accuracy in Communication Quality

AI Chatbot is a program that simulates human conversations through interactive methods such as text or voice, leveraging Natural Language Processing (NLP), Machine Learning (ML), and data analysis to effectively understand and respond during dialogues (Al-Amin et al., 2024). With flexible interaction capabilities, chatbots can ask questions, clarify customer needs, collect data, and improve problem-solving skills based on past experiences (Daud et al., 2024). The entertainment factor, by delivering engaging information, enhances approachability, encouraging users to share more, thus improving conversation quality (Muntinga et al., 2011; Ischen et al., 2020).

When customers need timely product and brand updates (Chung et al., 2020), AI Chatbots provide trend-aligned information, ensuring accuracy—a key element in customer service (Misischia et al., 2022). Personalization, the process of tailoring content to individual preferences based on shopping histories or online behavior, enhances customer experiences (Wang & Li, 2012; Zumstein & Hundertmark, 2017). This not only meets expectations but also boosts communication efficiency and accuracy (Chung et al., 2020; Misischia et al., 2022). Additionally, the problem-solving ability, by recognizing keywords and offering solutions, increases speed and accuracy in interactions (Jansom et al., 2022; Kaplan & Haenlein, 2019).

H1a: Interaction of AI Chatbots positively affects communication accuracy.

H1b: Entertainment factor of AI Chatbots positively affects communication accuracy.

H1c: Trendiness of AI Chatbots positively affects communication accuracy.

H1d: Personalization of AI Chatbots positively affects communication accuracy.

H1e: Problem-solving ability of AI Chatbots positively affects communication accuracy.

3.2.2. The Impact of AI Chatbot on Credibility in Communication Quality

AI Chatbots, with features such as quick, friendly responses and the ability to handle various inquiries, have contributed to building customer trust in this technology (Zhao et al., 2024). AI Chatbots not only minimize waiting time but also create a reliable support experience through personalization and data-driven responses, strengthening trust in communication with customers (Nwobodo et al., 2024). According to Brandtzaeg and Følstad (2017), AI Chatbots can meet users' entertainment needs, increase engagement, and strengthen trust in communication. The joy and satisfaction customers experience during chatbot interactions can create a comfortable environment, enabling the chatbot to gather more information and increase communication credibility (Muntinga et al., 2011).

Moreover, customers are more inclined to trust brands that keep up with trends and provide timely information, making AI Chatbots an effective and trustworthy communication tool (Chung et al., 2020). Misichia et al. (2022) noted that Chatbots' ability to continuously update trends and new information is key to building trust in customer communication. The personalization feature of AI Chatbots allows discussion content to be adjusted based on users' skills, language, educational background, and preferences, thereby increasing the receptivity of information (Baabdullah et al., 2022). Additionally, the empathetic capability of AI Chatbots, through recognizing and responding to users' emotional states, helps build trust in communication (Mariamo et al., 2021). Peng (2021) highlighted that intelligent AI Chatbots can handle complex issues using natural language processing, with precise responses even to uncertain questions, enhancing credibility in customers' perceptions (Nguyen & Dinh, 2023). Therefore, the authors propose:

H2a: Interaction of AI Chatbots positively affects communication credibility.

H2b: Entertainment factor of AI Chatbots positively affects communication credibility.

H2c: Trendiness of AI Chatbots positively affects communication credibility.

H2d: Personalization of AI Chatbots positively affects communication credibility.

H2e: Problem-solving ability of AI Chatbots positively affects communication credibility.

3.2.3. The Impact of AI Chatbot on Communication Competence

Satisfaction is a core factor determining the quality of customer service in businesses (Kaplan & Haenlein, 2019). AI Chatbots have increasingly been

designed to respond to customer needs, ensuring satisfaction through rapid interactions and effective communication. Customers often expect service systems to operate quickly and accurately, and the ability of AI Chatbots to promptly handle customer requests significantly enhances user satisfaction (Peng, 2021). Al-Amin et al. (2024) emphasized that the interactive capabilities of AI Chatbots help businesses build stronger relationships with customers by creating engaging and productive dialogues.

Additionally, the entertainment factor in AI Chatbots creates a relaxing environment, making customers more receptive to the provided information and increasing their overall satisfaction (Muntinga et al., 2011). The trendiness of AI Chatbots, demonstrated by their ability to supply updated and relevant information about products and services, ensures that customers stay informed and engaged, contributing to their satisfaction (Misischia et al., 2022). Personalization, a critical feature of AI Chatbots, fosters satisfaction by tailoring content and responses to suit individual customer preferences (Chung et al., 2020). Lastly, problem-solving capabilities enhance satisfaction by providing effective and timely solutions, enabling customers to resolve issues quickly and efficiently (Jansom et al., 2022). Therefore, the authors propose:

H3a: Interaction of AI Chatbots positively affects Communication Competence.

H3b: Entertainment factor of AI Chatbots positively affects Communication Competence.

H3c: Trendiness of AI Chatbots positively affects Communication Competence.

H3d: Personalize of AI Chatbots positively affects Communication Competence.

H3e: Problem-solving ability of AI Chatbots positively affects Communication Competence.

3.2.4. The Impact of Accuracy on Satisfaction

During interactions with chatbots, customers receive a large amount of information from this tool, and brands today focus on enhancing customer satisfaction through service and product experiences (Jian et al., 2014). Ashfaq et al. (2020) assert that the quality of information and service positively affects consumer satisfaction and predicts their likelihood of continuing to use chatbots. Spreng et al. (1996) state that when consumers receive accurate information about a product or service, they will have higher satisfaction with that information. Therefore, the authors propose:

H4: The accuracy of the AI Chatbot positively influences customer satisfaction

3.2.5. The Impact of Credibility on Satisfaction

In communication, the credibility of information is crucial because when customers receive accurate and reliable information, their satisfaction improves (Jansom et al., 2022). In fact, brand credibility can reduce prediction costs and perceived risks, while increasing the likelihood of customer choice (Erdem & Swait, 2004). When salespeople provide trustworthy and detailed product information, customer satisfaction is significantly enhanced (Adjei et al., 2010). A study on using AI Chatbots in training new employees showed that survey participants trusted the information provided by AI Chatbots as accurate and reliable (Asher, 2017), indicating positive attitudes and trust from users toward the chatbot's information source. Therefore, the authors propose:

H5: The credibility of the AI Chatbot positively influences customer satisfaction.

3.2.6. The Impact of Communication Competence on Satisfaction

Customers tend to evaluate AI Chatbots and human employees based on similar criteria, as long as the service is delivered effectively (Pavone et al., 2019). Consumers often expect salespeople to have good communication skills, process orders quickly, solve problems, and understand their needs (Garver & Mentzer, 2000). Nurhas et al. (2022) argue that AI Chatbots with social relaxation skills, such as creating a friendly and comfortable communication atmosphere with warm tones, humor, and patience, significantly impact customer perceptions, much like human conversations. Therefore, the communication competence of AI Chatbots strongly affects customer satisfaction. Therefore, the authors propose:

H6: The communication competence of the AI Chatbot positively influences satisfaction.

3.2.7. The Impact of Brand Personality on Satisfaction

According to Aaker (1997), the positive reception of brand-related stimuli by consumers plays an essential role in forming a good perception of brand personality. Brakus et al. (2009) suggest that brand experience is the foundation for brand personality perception, which in turn affects consumer satisfaction. Positive experiences with chatbots can enhance brand personality perceptions, particularly in aspects like competence and sincerity. Youn & Jin (2021) showed that direct interactions between consumers and chatbots help strengthen relationships through positive brand personality perceptions. Moreover, when brand personality aligns with a customer's self-image, satisfaction and brand relationships improve (Bilgili & Ozkul, 2015). Therefore, the authors propose:

H7: Brand personality positively influences customer satisfaction.

3.2.8. The Impact of Perceived Ease of Use on Attitude

According to Davis (1989), perceived ease of use reflects users' subjective perception of how easy and convenient it is to use a system, regardless of its objective simplicity. Previous studies have demonstrated the positive impact of ease of use on user attitudes through the Technology Acceptance Model (TAM) across various systems (Taylor & Todd, 1995). The easier a system is to use, the more likely users are to perceive its benefits, leading to a positive attitude that encourages exploration and adoption of the tool (Conner & Armitage, 1998). Therefore, the authors propose:

H8: Perceived ease of use positively impacts users' attitudes toward AI Chatbots.

3.2.9. The Impact of Perceived Usefulness on Attitude

Davis (1989) defines perceived usefulness as the degree to which an individual believes that using a system will enhance their job performance. Users' attitudes are often influenced by the perceived benefits of the system (Conner & Armitage, 1998). If users find AI Chatbots helpful in saving time, effort, or effectively solving problems, they are likely to value the tool and develop a positive attitude toward it. Therefore, the authors propose:

H9: Perceived usefulness positively impacts users' attitudes toward AI Chatbots.

3.2.10. The Impact of Perceived Ease of Use on Perceived Usefulness

According to Taylor and Todd (1995), the relative impact of ease of use and usefulness varies depending on users' experience levels. Novice users tend to focus on ease of use, while experienced users shift their attention toward perceived usefulness. Davis (1989) suggested that usefulness acts as a mediator, explaining the indirect effect of ease of use on users' behavioral intentions. When a system is easy to use, customers are more likely to recognize its usefulness. Therefore, the authors propose:

H10: Perceived ease of use positively impacts perceived usefulness.

3.2.11. The Impact of Satisfaction on Attitude

Many studies have confirmed the strong relationship between consumer satisfaction and their attitudes or preferences toward a brand (Bolton, 1998; Roest & Pieters, 1997). Specifically, cumulative satisfaction from service usage fosters positive customer attitudes (O'Cass & Grace, 2004). This principle applies to customers who have positive experiences with Chatbots, gradually improving their attitudes over time. In the context of AI Chatbots being integrated into Internet of Things platforms (Kar & Haldar, 2016), the relationship between satisfaction and attitude toward website attributes (Chen & Wells, 1999; Chen et al., 2002) can be similarly applied. Therefore, the authors propose:

H11: Customer satisfaction positively impacts their attitudes toward AI Chatbots.

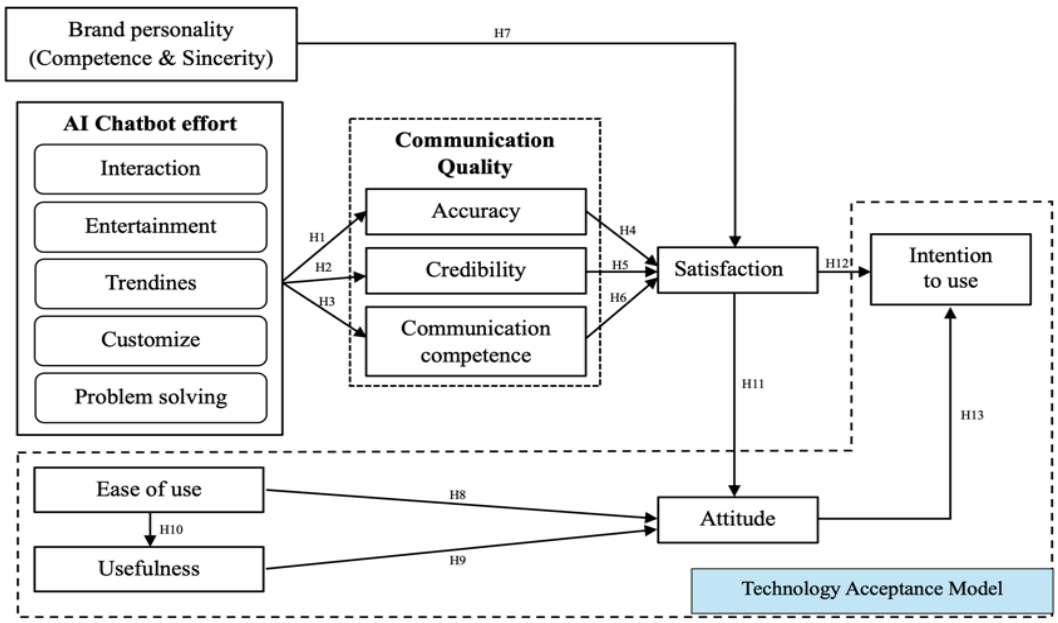

Figure 1. Proposed Research Model

3.2.12. The Impact of Satisfaction on Intention to Use

According to Ruiz et al. (2010), customer satisfaction is a critical topic in consumer behavior research. Satisfaction is not only a measure of the success or failure of a system (Cigdem & Ozturk, 2016) but also a strong predictor of future behavioral intentions. Numerous studies have highlighted the importance of satisfaction in predicting intention to use (Pozón-López et al., 2021). Therefore, the authors propose:

H12: Customer satisfaction positively impacts the intention to use AI Chatbots.

3.2.13. The Impact of Attitude on Intention to Use

Intention to use measures the likelihood of technology adoption, introduced by Davis (1989) through the Technology Acceptance Model (TAM). According to the model, an individual's intention to use is influenced by their attitude, perceived usefulness, and perceived ease of use of the technology. Ajzen (1992) also suggested that positive attitudes strongly encourage behavioral intentions. Empirical studies (Osman et al., 2016; Richad et al., 2019) have demonstrated that a positive attitude toward Chatbots significantly increases the intention to use them. Therefore, the authors propose:

H13: Users' attitudes positively impact their intention to use AI Chatbots.

Below is the research model proposed by the authors, building upon the framework of Chung et al. (2020), Youn & Jin (2021), Nguyen (2023).

4. Results and Discussion

4.1. Results

4.1.1. Survey Sample Description

Among 319 survey samples, 241 participants were female, representing 75.54%. In terms of age,

Table 1. Measurement Scales and Results of Reliability and Convergent Validity

Measurement scale content	OL	Cα	CR	AVE
INTERACTION (INTER) (Chung et al., 2020)		0.749	0.856	0.666
The chatbot is knowledgeable enough to answer my questions.	0.849			
The chatbot is never overwhelmed by requests.	0.763			
The chatbot provides personalized attention.	0.833			
ENTERTAINMENT (ENT) (Chung et al., 2020)		0.875	0.915	0.730
I find it enjoyable to chat with the chatbot.	0.830			
I feel engaged during conversations with the chatbot.	0.905			
Conversations with the chatbot are captivating.	0.889			
I prefer selecting products when suggested by the chatbot.	0.787			
TRENDINESS (TRE) (Chung et al., 2020)		0,840	0,893	0,676
The chatbot provides me with the latest information.	0.829			
Using the chatbot makes me feel up-to-date.	0.836			
The chatbot always offers updated content.	0.835			
Using the chatbot reflects a modern trend.	0.787			
CUSTOMIZE (CUS) (Chung et al., 2020)		0,879	0,917	0,735
The chatbot provides product and service information unavailable elsewhere.	0.837			
Switching to another brand's chatbot would result in less personalized information.	0.884			
Using the chatbot meets my personal needs.	0.846			
The chatbot offers information tailored to my preferences.	0.860			
PROBLEM SOLVING (PS) (Chung et al., 2020)		0,874	0,914	0,726
The chatbot is always ready to assist with returns or exchanges.	0.862			
The chatbot shows genuine care in resolving issues.	0.831			
The chatbot handles complaints efficiently.	0.853			
I trust the chatbot's competence in completing tasks.	0.861			
ACCURACY (ACC) (Chung et al., 2020)		0,863	0,907	0,709
Communication with the AI chatbot is timely.	0.818			

Communication with the AI chatbot is accurate.	0.839			
Communication with the AI chatbot is complete and comprehensive.	0.860			
Communication with the AI chatbot is reliable.	0.851			
CREDIBILITY (CRE) (Pavlou, 2003; Nghiem et al., 2022)		0,832	0,888	0,665
I find the AI chatbot trustworthy.	0.810			
I believe the AI chatbot prioritizes my interests.	0.839			
Information from the AI chatbot is persuasive.	0.823			
Information from the AI chatbot is worth referencing.	0.790			
COMMUNICATION COMPETENCE (CC) (Chung et al., 2018)		0.819	0.917	0.846
Interacting with the AI chatbot is more effective than with brand staff.	0.924			
I believe businesses use AI chatbots more efficiently than other communication methods.	0.916			
SATISFACTION (SAT) (Trinh & Nguyen, 2021)		0,854	0,902	0,697
I feel I made the right decision by using the AI chatbot.	0.871			
I receive prompt responses from the AI chatbot.	0.774			
I am satisfied with the chatbot's responses.	0.848			
I am pleased with the chatbot's professional quality.	0.844			
BRAND PERSONALITY (BP) (Trinh & Nguyen, 2021; Mao et al., 2020)		0,901	0,927	0,716
I think businesses using chatbots demonstrate sincerity.	0.854			
I think businesses using chatbots create excitement.	0.844			
I think businesses using chatbots exhibit competence.	0.854			
I think businesses using chatbots display sophistication.	0.860			
I think businesses using chatbots convey strength.	0.819			
PERCEPTION EASE OF USE (PEOU) (Vankatesh et al., 2012)		0,882	0,919	0,738
I find the AI chatbot helpful in my life.	0.864			
The AI chatbot enhances my ability to achieve important goals.	0.826			
The AI chatbot helps me achieve objectives quickly.	0.882			
Using the AI chatbot boosts my productivity.	0.864			
PERCEPTION USEFULNESS (PU) (Vankatesh et al., 2012)		0,899	0,929	0,767
Learning to use the AI chatbot is easy for me.	0.869			
Interacting with the AI chatbot is simple and understandable.	0.859			
I find the AI chatbot easy to use.	0.892			
It is easy for me to become proficient in using the AI chatbot.	0.883			
ATTITUDE (ATT) (Vankatesh et al., 2012)		0,888	0,922	0,748
Overall, I have a positive attitude toward the AI chatbot.	0.862			
The idea of using the AI chatbot is appealing to me.	0.871			
Using the AI chatbot is a good idea.	0.859			
I think using the AI chatbot is a wise choice.	0.868			
INTENTION TO USE (ITU) (Kim et al., 2010; Mao et al., 2020)		0,893	0,925	0,756
If given the chance, I intend to use this company's chatbot services.	0.872			
If possible, I believe I will use this company's chatbot services in the future.	0.871			
I plan to use the chatbot for purchase support within the next six months.	0.866			
I will use this company's chatbot services or recommend them to friends and family.	0.868			

**Notes: OL (Outer Loadings), C (Cronbach's Alpha), CR (Composite Reliability), AVE (Average Variance Extracted)*

the 19-22 group had the highest proportion, with 257 participants (79.89%), while the 23-27 group accounted for 37 participants (11.59%). The 12-15 and 16-18 groups included 3 and 22 participants, respectively, representing 0.94% and 6.89%. Most participants were students (262, 82.13%), followed by office workers (30, 9.4%) and freelancers (23, 7.21%).

4.1.2. Results of the Measurement Model

The study applied PLS-SEM, suitable for a sample size of 319 in exploring research models (Hair et al., 2011). The measurement model assessment involved: evaluating scale reliability using Cronbach's Alpha (Cα) and Composite Reliability (CR), assessing convergent validity via Average Variance Extracted (AVE) and Outer Loadings, and evaluating discriminant validity through the square root of AVE (SQRT(AVE)).

According to the data processing results, 54 observed variables had outer loadings ranging from 0.752 to 0.904. As stated by Hair et al. (2022), an outer loading is considered acceptable when it meets the threshold of 0.7 or higher. The scales demonstrate high reliability and convergent validity, the other scales retained their Cronbach's Alpha, CR, and AVE values within the acceptable range, with Cronbach's Alpha from 0.749 to 0.899, CR > 0.7, and AVE > 0.5 (Hair et al., 2022). These findings indicate that the scales demonstrate strong reliability and convergent validity. Furthermore, they suggest that, on average, the latent construct explains at least 50% of the variance in its observed variables.

Discriminant validity was assessed using the Heterotrait-Monotrait Ratio (HTMT) method, a modern and recommended approach for examining differences between latent variables. According to Henseler et al. (2015), HTMT values should be below 0.85 (or 0.90 in certain research contexts) to confirm discriminant validity. The results in Table 2 indicate that most HTMT values between the scales are below 0.85, although some pairs have values around 0.854, which confirms that the scales achieved discriminant validity.

4.1.3. Result of the Structural Model Evaluation

The multicollinearity analysis results continued to indicate that most Variance Inflation Factor (VIF) values were below 3. According to Sarstedt et al. (2016), a VIF value below 5 suggests that the model does not violate multicollinearity assumptions. Therefore, it can be confirmed that the model does not exhibit multicollinearity, meaning that the independent observed variables do not have strong correlations with each other.

To test the research hypotheses and determine the directional effects of factors in the model, the bootstrapping estimation technique was employed. According to Hair et al. (2022), P-values < 0.05 indicate statistically significant relationships. The Original Sample coefficient (also referred to as the standardized regression coefficient) with a positive sign represents a positive effect, while a negative sign represents a negative effect.

According to Table 3, out of 25 proposed hypotheses, 20 (H1a, H1c, H1d, H1e, H2a, H2c, H2e, H3a, H3b, H3d, H3e, H4, H5, H6, H7, H8, H9, H10, H11, H12, H13) were supported with statistically significant P-values (< 0.05). Meanwhile, 5 hypotheses (H1b, H2b, H2d, H3c, H3e) were not supported.

In terms of decreasing impact based on β coefficients, the strongest relationship was ATT → ITU (β = 0.639),

Table 2. Discriminant Validity Heterotrait-Monotrait Ratio (HTMT)

	ACC	ATT	BP	CC	CRE	CUS	ENT	INTER	ITU	PEOU	POU	PS	SAT	TRE
ACC														
ATT	0.839													
BP	0.770	0.816												
CC	0.723	0.644	0.775											
CRE	0.899	0.896	0.839	0.643										
CUS	0.807	0.779	0.748	0.718	0.829									
ENT	0.706	0.674	0.720	0.688	0.696	0.772								
INTER	0.820	0.752	0.750	0.726	0.811	0.827	0.864							
ITU	0.808	0.944	0.820	0.686	0.898	0.781	0.641	0.734						
PEOU	0.757	0.864	0.753	0.649	0.801	0.774	0.676	0.733	0.790					
POU	0.686	0.785	0.604	0.409	0.777	0.612	0.479	0.646	0.732	0.740				
PS	0.780	0.795	0.759	0.674	0.878	0.883	0.747	0.812	0.778	0.761	0.686			
SAT	0.837	0.917	0.837	0.778	0.921	0.848	0.718	0.847	0.872	0.864	0.723	0.862		

Table 3. Coefficients (β), P-values and R Square Adjusted

Hypothesis	Direct Effect	Coefficients (β)	P-values	Conclusions	R Square Adjusted
H1a	INTER -> ACC	0.221	0.001	Supported	0.604
H1b	ENT -> ACC	0.051	0.462	Not supported	
H1c	TRE -> ACC	0.250	0.000	Supported	
H1d	CUS -> ACC	0.211	0.002	Supported	
H1e	PS -> ACC	0.169	0.009	Supported	
H2a	INTER -> CRE	0.148	0.005	Supported	0.673
H2b	ENT -> CRE	-0.025	0.619	Not supported	
H2c	TRE -> CRE	0.349	0.000	Supported	
H2d	CUS -> CRE	0.103	0.086	Not supported	
H2e	PS -> CRE	0.356	0.000	Supported	
H3a	INTER -> CC	0.180	0.009	Supported	0.443
H3b	ENT -> CC	0.225	0.001	Supported	
H3c	TRE -> CC	-0.102	0.179	Not supported	
H3d	CUS -> CC	0.301	0.001	Supported	
H3e	PS -> CC	0.140	0.104	Not supported	
H4	ACC -> SAT	0.140	0.011	Supported	0.707
H5	CRE -> SAT	0.407	0.000	Supported	
H6	CC -> SAT	0.221	0.000	Supported	
H7	BP -> SAT	0.201	0.001	Supported	
H8	PEOU -> ATT	0.279	0.000	Supported	0.730
H9	POU -> ATT	0.240	0.000	Supported	
H11	SAT -> ATT	0.439	0.000	Supported	
H10	PEOU -> POU	0.661	0.000	Supported	0.435
H12	SAT -> ITU	0.253	0.000	Supported	0.729
H13	ATT -> ITU	0.639	0.000	Supported	

followed by PEOU → POU (β = 0.661), CRE → SAT (β = 0.407), TRE → CRE (β = 0.349), and PS → CRE (β = 0.356). Other notable relationships included CC → SAT (β = 0.221), PEOU → ATT (β = 0.279), INTER → CC (β = 0.180), SAT → ITU (β = 0.253), POU → ATT (β = 0.240), INTER → ACC (β = 0.221), SAT → ATT (β = 0.439), and BP → SAT (β = 0.201).

Accuracy (ACC) was influenced by INTER (β = 0.221), TRE (β = 0.250), CUS (β = 0.211), and PS (β = 0.169). For Credibility (CRE), the key influencing factors were PS (β = 0.356), TRE (β = 0.349), and INTER (β = 0.148). Regarding Communication Competence (CC), the influencing variables included INTER (β = 0.180), ENT (β = 0.225), and CUS (β = 0.301).

For Satisfaction (SAT), influencing factors included CRE (β = 0.407), CC (β = 0.221), BP (β = 0.201), and ACC (β = 0.140). In terms of Attitude (ATT), PEOU (β = 0.279) had the strongest impact, followed by POU (β = 0.240) and SAT (β = 0.439). Finally, the factors affecting Intention to Use (ITU) were ATT (β = 0.639) and SAT (β = 0.253), with ATT showing a stronger influence.

The R^2 adjusted values for dependent variables ranged from 43.5% to 73%. Specifically, the adjusted R^2 for ATT was 0.730, indicating that independent variables explained 73% of the variance in ATT. According to Cohen (1988), PEOU had a strong effect on PU with $f^2 = 0.776$, while ATT had a medium effect on ITU ($f^2 = 0.547$) and SAT had a medium effect on ATT ($f^2 = 0.294$). Most independent variables exhibited only small effects.

4.2. Discussion of Research Findings

The findings highlight that ATT and SAT are strong predictors of consumers' intention to use AI Chatbots. CRE (β = 0.356) and Communication Competence (β = 0.301) significantly influenced SAT, aligning with Chung et al. (2018), who emphasized that trust in AI Chatbots plays a critical role in enhancing customer satisfaction with luxury brands. In the context of AI Chatbots replacing human resources, PEOU and PU emerged as key factors influencing ATT and SAT, consistent with Nguyen (2022), who demonstrated the strong impact of PEOU and PU on Gen Z's consumer behavior in Vietnam through AI Chatbots. This highlights the importance of user-friendly interfaces in

chatbot applications.

Moreover, Interaction, Entertainment, Trendiness, Problem-Solving, and Customization indirectly affected Intention to Use through Satisfaction by influencing Accuracy, Credibility, and Communication Competence. The strong β coefficients indicate users' expectations for Chatbots in advisory and customer service roles, which aligns with Chung et al. (2018). However, Entertainment did not significantly impact Accuracy or Credibility. This may be due to users prioritizing accuracy and problem-solving capabilities over entertainment value in chatbot interactions, leading to the rejection of hypotheses H1b and H2b.

Similarly, Customization did not significantly influence Credibility (H2d). This could stem from concerns over inconsistent or inaccurate information provided by highly customized chatbots. Additionally, Trendiness had no notable effect on Communication Competence (H3c). Users may perceive that staying updated with trends does not necessarily equate to effective customer support, especially if their experiences with trend-focused AI Chatbots did not demonstrate practical utility.

Furthermore, Problem-solving ability did not significantly affect Communication Competence (H3e). This may be because users do not necessarily assess a chatbot's problem-solving ability based on its communication skills but rather its effectiveness in providing solutions. As a result, hypothesis H3e was rejected.

The above results offer significant practical value for Vietnamese SMEs implementing AI chatbots to engage Gen Z consumers. Businesses should focus on developing chatbots with easy-to-use interfaces, ensuring accurate and reliable information, while enhancing communication competence to deliver a more natural and engaging experience. However, the study also has limitations. Focusing on Gen Z may limit the generalizability of the findings to other age groups, who might have distinct expectations regarding AI chatbots. Furthermore, the research did not delve into other factors such as cultural or emotional influences, which could play a role in technology acceptance. Therefore, future studies could broaden the scope to explore these aspects and assess the long-term effectiveness of chatbots on customer loyalty in Vietnamese SMEs.

5. Managerial Implications

This study has successfully addressed the research questions and achieved the set objectives. Specifically, the research findings have identified the factors influencing Gen Z's intention to use AI Chatbots, which, apart from ATT, SAT, and CRE, also include specific characteristics of the Chatbot as well as Brand Personality and Communication Quality. Additionally, the study has determined the level of influence of each factor, with ATT and SAT being the most impactful on usage intention. Finally, the research has proposed solutions to improve the quality and features of AI Chatbots to enhance user experience and usage intention, particularly in brand positioning and attracting young customers.

The findings indicate that ATT has the strongest influence on ITU with $\beta = 0.639$, emphasizing that a positive attitude toward AI Chatbots will drive young users to decide to use this tool. SAT also significantly affects the intention to use, confirming the role of user experience in driving consumer behavior. In addition, factors such as PEOU and PU play an important role in influencing user attitudes. PEOU has a significant impact on ATT, suggesting that a user-friendly and easy-to-navigate interface is a key factor in creating users' affection for the Chatbot. Similarly, PU not only affects ATT but also contributes to increasing user satisfaction. Notably, CRE is a factor that strongly impacts satisfaction, indicating that providing accurate and consistent information is a prerequisite for building trust from users. Moreover, CC also significantly affects SAT, emphasizing that flexible and personalized communication is a strength that businesses need to focus on. However, some factors such as EN) and TRE do not significantly impact CRE or ACC, suggesting that users care more about the practicality and effectiveness of the Chatbot than entertainment features.

From the above results, it can be concluded that improving the interface and features of AI Chatbots to increase ease of use and usefulness will foster positive attitudes and intention to use. At the same time, building trust by providing accurate information and enhancing the communication competence of the Chatbot will increase satisfaction, thereby contributing to brand positioning in the minds of Gen Z.

Some managerial implications are proposed:

Firstly, is that businesses should focus on simplifying the chatbot user experience. For young customers like Gen Z, quick and easy operations are key. This requires the Chatbot to have an intuitive, user-friendly interface. For example, a cosmetics company can design predefined menus such as "View Products," "Consultation," or "Promotions" to make it easier for customers to choose. Additionally, the Chatbot needs to be integrated on popular platforms that Gen Z frequently uses, such as Facebook Messenger, Zalo, or Instagram, ensuring fast and accurate response times.

Secondly, is that accuracy and reliability are core factors in building customer trust. Businesses need to invest in quality databases so that the Chatbot can answer user questions correctly and consistently. It is also essential to update information regularly to prevent it from becoming outdated. For example, an SME in the functional foods sector should program the Chatbot to provide detailed information about product ingredients, usage, and origins. If customers ask about

products for diabetes, the Chatbot should provide accurate answers and suitable recommendations.

Thirdly, is that the communication competence of the Chatbot needs to be enhanced to create satisfaction and engagement with customers. The Chatbot should not only provide accurate information but also communicate skillfully and in a friendly manner. Businesses can program the Chatbot to personalize responses, such as addressing customers by name or using language that fits Gen Z's youthful, modern style. For example, a fashion brand could program the Chatbot to greet customers by name, use trendy language, and include emojis. At the same time, the Chatbot should also learn to handle difficult situations, such as professionally apologizing if a customer encounters an issue, to maintain goodwill.

Fourthly, is that personalizing the user experience is a trend that should be applied appropriately to make customers feel special. For example, an online bookstore's Chatbot could suggest: "Hello [Name], you bought Harry Potter last time. Would you like to explore more books in the same genre?" However, it is important to avoid over-personalizing, which could lead to errors or privacy concerns. For instance, if a customer has never purchased financial books and the Chatbot incorrectly suggests them, it could cause discomfort or loss of trust.

Finally, to foster a positive attitude among customers, the Chatbot needs to provide a comprehensive experience that aligns with the brand personality. An effective Chatbot is not only useful but also creates a sense of enjoyment or professionalism, depending on the brand image the business wants to build. For example, a sneaker brand could design the Chatbot in a youthful style, using emojis and humorous responses. Additionally, the Chatbot could send greetings on special occasions, helping to create a strong emotional connection with customers.

In addition to the results achieved in filling the research gaps and contributing theoretically and practically, the study also has some limitations. The focus on Gen Z may mean that this group has a different perception, thought, and feeling about using AI Chatbots compared to other generations. Additionally, the study only explored certain factors related to AI Chatbots and Brand Personality. Many other factors affecting consumer behavior need to be considered. Future research should examine the impact of more factors related to AI Chatbots and Brand Personality to gain a broader perspective on the influencing elements.

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