

The Impact of Anthropomorphism on AI Chatbot Usage Intention: The Mediating Role of Customer Experience in a Modified UTAUT Model

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Abstract: The precipitous trajectory of artificial intelligence has hastened, within university career services, the integration of chatbot systems. However, technical sophistication alone does not guarantee the efficacy of AI chatbot deployment; user acceptance and the quality of the interaction experience are equally critical. This study identifies the mediating role of customer experience within the association between anthropomorphism, the constructs of a modified Unified Theory of Acceptance and Use of Technology (UTAUT)—namely perceived ease of use, performance expectancy, initial trust, and social influence as well as the usage intention toward the Patriot Yupi chatbot at a university Career Center. A quantitative survey was administered to 403 university alumni, and the collected data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results indicate that all hypothesized direct correlations were positive and statistically significant. Furthermore, customer experience meaningfully mediated the associations between anthropomorphism, the modified UTAUT constructs, and usage intention. Specifically, anthropomorphism cultivates favorable user perceptions, while customer experience serves as the pivotal mechanism translating these perceptions into a sustained intention to use the chatbot. This research extends the scope within which the UTAUT framework can be meaningfully applied within the domain of AI-driven career service chatbots and provides practical insights for designing chatbots that effectively enhance the user experience.

Keywords: Anthropomorphism, AI Chatbot, Customer Experience, UTAUT, Usage Intention

1. INTRODUCTION

The precipitous trajectory of information technology has expedited digital transformation across myriad sectors, with artificial intelligence (AI) surfacing as a pivotal catalyst of service innovation (de Andrés-Sánchez & Gené-Albesa, 2023). One of the most prominent AI applications is the conversational chatbot, a virtual assistant capable of providing instant, personalized, and 24/7 services through natural language processing (NLP) capabilities (Sfar et al., 2025). Consequently, chatbot adoption has extended across a wide range of sectors, including business, healthcare, governance, and education, to improve operational efficiency and enhance user interactions (de Andrés-Sánchez & Gené-Albesa, 2023; Sfar et al., 2025). As chatbot implementation continues to expand, scholarly attention has increasingly focused on elucidating the factors underlying user acceptance and usage intention, both of which play a decisive role in embedding AI technologies.



Universities have increasingly integrated chatbots to enhance various non-academic operations, such as administrative assistance, library services, and career support as part of broader digital transformation efforts to deliver faster, more responsive, and accessible services (Sfar et al., 2025). However, despite their expanding deployment, chatbot adoption has not consistently translated into optimal user acceptance. According to the Digital Education Council Global AI Student Survey 2024, approximately 80% of respondents indicated that the integration of AI within universities had not fully met their expectations.

Furthermore, the survey revealed that approximately 80% of students felt the incorporation of AI within universities had not fully met their expectations (Kelly, 2024). This finding suggests that a chatbot's success extends beyond its technical capabilities, relying heavily on how users perceive and experience their interactions with the system. As non-human entities, chatbots continue to encounter challenges in fostering natural interactions, establishing initial trust, and delivering positive user experiences, factors that collectively shape users' continued usage intention (Sfar et al., 2025; Mowreader, 2025; Sidoti et al., 2023). This challenge is equally evident in the university's Career Center, which implemented the Patriot Yupi chatbot to optimize access to job vacancy information, curriculum vitae (CV) consultations, and career development services for students and alumni.

Anthropomorphism has emerged as a widely adopted design approach in AI chatbots, aimed at fostering more natural and engaging interactions by incorporating human-like traits, for example visual avatars, conversational styles, and visual expressions (Sfar et al., 2025). Prior scholarly work points to the notion that anthropomorphic features enhance users' sense of familiarity, comfort, and interaction quality, thereby yielding more positive user experiences (Sfar et al., 2025). In university career services, where user interactions are inherently personal and advisory, the perceived human-likeness of a chatbot serves as a crucial factor in shaping continued usage behavior. Nevertheless, the underlying mechanisms through which anthropomorphism translates into sustained AI chatbot usage intention remain insufficiently elucidated, particularly within higher education career service environments.

Although scholarly attention to AI chatbots has grown considerably, significant gaps in the literature remain. The majority of existing studies have centred on educational contexts outside Indonesia or on commercial sectors such as insurance services (de Andrés-Sánchez & Gené-Albesa, 2023; Sfar et al., 2025). Accordingly, little empirical research has examined anthropomorphic chatbots in the career services of higher education, particularly at Indonesian public universities. Furthermore, existing scholarship predominantly investigates the direct effects of technological and psychological factors on usage intention, whereas the indirect mechanisms through which user perceptions influence continued usage intention via customer experience remain underexplored. These limitations underscore the necessity of validating an extended technology acceptance model within university career services by simultaneously accounting for functional, social, and experiential dimensions.

Understanding user acceptance of AI chatbots requires a theoretical framework capable of explaining behavioral intentions from both functional and social perspectives. The Unified Theory of Acceptance and Use of Technology (UTAUT) is widely regarded as among the most rigorously validated frameworks for predicting user acceptance and usage intention toward digital technologies, including AI chatbots (Sfar et al., 2025; Gefen et al., 2025; Gu et al., 2024). Chatbot interactions depend on more than performance expectancy and social factors, the constructs at the core of the UTAUT framework. How naturally the conversation flows also shapes the experience (Sfar et al., 2025).

Beyond the functional determinants framework of UTAUT, this study extends the model by incorporating anthropomorphism, initial trust, along with customer experience to capture the social and affective dimensions inherent in AI chatbot interactions. Anthropomorphic attributes such as human-like avatars, conversational style, and responsive behavior make chatbots feel more familiar and help build early trust, improving the interaction overall (Sfar et al., 2025; Gefen et al., 2025; Gu et al., 2024). This structural enhancement is grounded in the Computers Are Social Actors (CASA) paradigm, which contends that users tend to respond to human-like chatbots as social actors

rather than mere technological tools. Consequently, customer experience is expected to serve as the key mechanism translating user perceptions into usage intention (Sfar et al., 2025). Nonetheless, the mediating role of customer experience within AI chatbot acceptance models remains insufficiently explored and warrants further empirical validation, particularly within the context of university career services.

RQ: How does customer experience mediate the effects of anthropomorphism and modified UTAUT factors on AI chatbot usage intention?

Given these research gaps, this study uses a modified UTAUT framework to examine how customer experience mediates the relationships among anthropomorphism, perceived ease of use, performance expectancy, initial trust, social influence, and AI chatbot usage intention. The structural model proposed is subjected to empirical testing by means of Partial Least Squares Structural Equation Modeling (PLS-SEM), drawing on data gathered from users of Patriot Yupi, the chatbot operated by the university's Career Center. By examining customer experience as an underlying mediating mechanism, this study advances the understanding of AI chatbot acceptance beyond direct technology adoption paradigms. This study contributes to the growing body of work on conversational AI adoption while also offer practical guidance for universities designing chatbot services that actually center the student, not just the system.

2. Literature Review

2.1. Anthropomorphism

Anthropomorphism describes the tendency to assign human traits, emotions, or behaviors to non-human, including artificial intelligence (AI) systems such as chatbots (Epley et al., 2007). Chatbot design embeds anthropomorphism is directly embedded through features like human-like names, visual avatars, distinct personalities, and natural conversational patterns. In alignment with the CASA paradigm, these design attributes encourage users to perceive chatbots as social actors rather than mere technological tools (Sfar et al., 2025). Prior investigation demonstrates that anthropomorphic chatbot features enhance user familiarity, reduce interaction uncertainty, and foster perceptions of trust and usefulness (Sfar et al., 2025). Consequently, anthropomorphism is widely recognized as a critical antecedent that shapes both cognitive evaluations and emotional responses, ultimately facilitating technology acceptance, particularly in environments where reliable and credible information is essential.

2.2. Customer Experience

Customer experience refers to users' holistic responses to their interactions with a service, encompassing cognitive, affective, sensory, and behavioral dimensions throughout the entire interaction journey (Sfar et al., 2025; Peppers & Rogers, 2016). Customer satisfaction is typically measured after the fact, once the purchase or interaction is over. Customer experience is broader, it accumulates across every touchpoint a user has with the system, from first contact through post-use follow-up. Within AI chatbot services, these touchpoints comprise interface usability, responsiveness, communication quality, and interaction design, all of which shape users' evaluations of service quality (Sfar et al., 2025). its application within the Patriot Yupi chatbot context conceptually aligns with User Experience (UX), which emphasizes users' perceptions, emotions, and behavioral responses during system interactions (Chandra et al., 2023). Nevertheless, the term Customer Experience is retained to ensure consistency with the foundational conceptual model and measurement instrument. Empirical scholarship further establishes customer experience as a pivotal mediating mechanism linking user perceptions of chatbot attributes to continued usage intention (Sfar et al., 2025; Leong et al., 2026).

2.3. UTAUT

Propounded by Venkatesh et al. (2003), UTAUT is an integrative framework that consolidates eight prominent technology acceptance models: the Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Combined TAM-TPB (C-TAM-TPB), Motivational Model (MM), Model of PC Utilization (MPCU), Innovation Diffusion Theory (IDT), and Social Cognitive Theory (SCT) (Venkatesh et al., 2003).

Through four core constructs, namely performance expectancy, effort expectancy, social influence, and facilitating conditions, users' behavioral intention and actual technology use was UTAUT formulated to elucidate (Venkatesh et al., 2003). What performance expectancy reflects is users' conviction that a technology will enhance task performance, in contrast, effort expectancy captures how easy the technology is perceived to be to use (Venkatesh et al., 2003).

Social influence captures individuals' perception that people who matter to them expect them to adopt a given technology; facilitating conditions, by contrast, refer to the extent to which organizational and technical resources are perceived as available to support use of the system (Venkatesh et al., 2003). Due to its high predictive validity, UTAUT has seen widespread use in a variety of fields for examining the adoption of AI chatbots (de Andrés-Sánchez & Gené-Albesa, 2023; Sfar et al., 2025). Grounded in this theoretical framework, the current study retains performance expectancy and social influence from the original model while incorporating perceived ease of use in place of effort expectancy to better reflect conversational chatbot usability, in alignment with prior research (Sfar et al., 2025). Furthermore, to comprehensively elucidate AI chatbot adoption within university career services, the model is extended by incorporating anthropomorphism, initial trust, and customer experience, adapting the framework proposed by Sfar et al. (2025).

2.4. Research hypothesis

Anthropomorphism denotes the attribution of human characteristics to virtual agents, fostering interactions that feel more natural and familiar to users through human-like conversational styles and responsive behaviors (Sfar et al., 2025). Anthropomorphism denotes the attribution of human characteristics to virtual agents, fostering interactions that feel more natural and familiar to users through human-like conversational styles and responsive behaviors (Davis, 1989). When an AI chatbot exhibits human-like communication, users experience more intuitive interaction without relying on rigid commands or extensive training. This human-like interaction reduces the cognitive effort required to navigate the system and facilitates a smoother user experience (Sfar et al., 2025). Drawing on this theoretical framework, the study proposes the following hypothesis:

H1. Chatbot anthropomorphism positively impacts perceived ease of use.

Anthropomorphism refers to the degree to which a virtual agent is endowed with human-like characteristics such as a visual identity, distinct personality, and natural communication style, thereby fostering interactions that feel social and natural to users (Sfar et al., 2025; van der Goot & Pilgrim, 2020). Based on the Computers Are Social Actors (CASA) paradigm, users tend to apply social norms when engaging with anthropomorphic technologies, leading them to evaluate the chatbot as more capable and intelligent rather than a mere automated tool (Sfar et al., 2025). Consequently, users become more inclined to believe that the chatbot can effectively assist with career-related tasks, thereby heightening their performance expectancy which defined as the perceived usefulness of a system in enhancing task performance (Sfar et al., 2025). These theoretical foundations point to a testable hypothesis:

H2. Chatbot anthropomorphism positively impacts performance expectancy.

Anthropomorphism endows a chatbot with human-like characteristics, such as a name, avatar, and personality, making interactions feel more familiar and reducing the uncertainty commonly associated with artificial intelligence systems (Sfar et al., 2025). Meanwhile, initial trust reflects a user's willingness to rely on a system during an early encounter prior to gaining substantial direct experience (Talwar et al., 2020). Familiarity and perceived transparency, cultivated by anthropomorphic cues, induce users to attribute trustworthy human qualities, such as reliability and competence, to the chatbot, thereby fortifying their initial trust (Sfar et al., 2025). Given this theoretical grounding, the following hypothesis is proposed:

H3. Chatbot anthropomorphism positively impacts initial trust.

Anthropomorphism enables a chatbot to interact in a more human-like and socially engaging manner, transforming a purely functional interaction into a social experience (Sfar et al., 2025). The extent to which individuals perceive that people important to them encourage the use of a particular technology is what social influence reflects

(Sfar et al., 2025). Because anthropomorphic chatbots tend to create more memorable and engaging interactions, they are more likely to become topics of discussion and recommendation within users' social networks, thereby strengthening social influence toward chatbot adoption (Sfar et al., 2025). This framework leads to the following hypothesis:

H4. Chatbot anthropomorphism positively impacts social influence.

Anthropomorphism introduces human-like attributes that transform chatbot interactions from purely functional exchanges into more engaging and emotionally rich experiences (Sfar et al., 2025). Customer experience represents users' holistic responses to their interactions with a service, encompassing cognitive, emotional, sensory, and behavioral dimensions (Peppers & Rogers, 2016). By making interactions feel more personal, enjoyable, and socially engaging, anthropomorphic features enhance users' overall experience with the chatbot beyond its functional performance (Sfar et al., 2025). The following hypothesis follows from this theoretical grounding:

H5. Chatbot anthropomorphism positively impacts customer experience.

Anthropomorphism lends a chatbot a more attractive, engaging, and credible appearance by equipping it with human-like characteristics that resonate with users (Sfar et al., 2025). An individual's willingness to continue using a technology in the future is what usage intention refers to, and it is considered one of the strongest predictors of actual usage behavior (de Andrés-Sánchez & Gené-Albesa, 2023). By delivering more enjoyable and personalized interactions, anthropomorphic chatbots foster emotional attachment and increase users' motivation to engage with the system, thereby directly enhancing their behavioral intention to use it (Sfar et al., 2025). Building on this body of theory, we hypothesize the following:

H6. Chatbot anthropomorphism positively impacts usage intention.

Perceived ease of use refers to the extent to which a user believes that interacting with a technology will be free of physical and mental effort (Davis 1989). Intuitive and easy-to-learn systems enable users to accomplish their tasks with less cognitive effort, resulting in smoother interactions. Customer experience encompasses users' overall cognitive, emotional, sensory, and behavioral responses throughout their interaction with a service (Peppers & Rogers, 2016). Greater comfort and satisfaction during the interaction tend to be experienced by users when a chatbot is perceived as easy to use, thereby enhancing their overall customer experience (Sfar et al., 2025). From this theoretical basis emerges the following hypothesis:

H7. Perceived ease of use positively impacts customer experience.

Performance expectancy refers to users' belief that a technology can improve their task performance by providing useful and effective support (Sfar et al., 2025). In the context of AI career service chatbots, users expect the system to deliver accurate, timely, and relevant career information. Customer experience reflects users' holistic evaluation of their interactions with a service across cognitive and emotional dimensions (Peppers & Rogers, 2016). When a chatbot meets or exceeds users' expectations by effectively supporting their career-related needs, it generates positive cognitive and emotional responses that contribute to a better overall customer experience (Sfar et al., 2025). Taken together, these theoretical strands suggest the following hypothesis:

H8. Performance expectancy positively impacts customer experience.

Initial trust refers to users' willingness to rely on a chatbot during their first interaction before substantial usage experience has been established (Sfar et al., 2025). In AI-based career services, initial trust is essential because users often share personal information and seek recommendations related to important career decisions. Not only on service performance, but also on users' perceptions of security, reliability, and confidence throughout the interaction, does customer experience depend (Peppers & Rogers, 2016). More open and comfortable interaction tends to follow when users perceive the chatbot as trustworthy, reducing uncertainty and fostering a more positive overall customer experience (Sfar et al., 2025). This reasoning yields the following hypothesis:

H9. Initial trust positively impacts customer experience.

Social influence refers to the degree to which users perceive that important reference groups encourage their use of a specific technology (Sfar et al., 2025). Positive recommendations and opinions from peers can shape users' expectations before interacting with a chatbot, fostering favorable perceptions of the system. Customer experience represents users' holistic responses to their interactions with a service across cognitive, emotional, sensory, and behavioral dimensions (Peppers & Rogers, 2016). Greater confidence and favorable expectations tend to accompany users' approach to the chatbot when positive social endorsement is received, resulting in a more positive overall customer experience (Sfar et al., 2025). In light of the theory reviewed above, the study advances the following hypothesis:

H10. Social influence positively impacts customer experience.

Customer experience encompasses users' holistic and subjective responses across cognitive, emotional, sensory, and behavioral dimensions throughout their interaction journey with a service (Peppers & Rogers, 2016). Positive customer experiences emerge when a chatbot delivers enjoyable, efficient, and valuable service outcomes (Sfar et al., 2025). Meanwhile, usage intention reflects a user's willingness to continue utilizing a technology in the future, serving as a primary predictor of actual usage behavior (Talwar et al., 2020). When users derive a satisfying and high-value experience from interacting with an AI chatbot, they develop a stronger behavioral intention to reuse the system for subsequent career-related services (Sfar et al., 2025). On this basis, the study puts forward the following hypothesis:

H11. Customer experience positively impacts usage intention.

Mediation analysis decomposes the total effect of X on Y into a direct path and an indirect path routed through the mediator (Hair et al., 2019). Grounded in the arguments for H5 and H11, anthropomorphic chatbot characteristics enhance users' customer experience, which subsequently increases their behavioral intention to continue using the system. Empirical scholarship similarly demonstrates that customer experience serves as a pivotal mediating mechanism linking anthropomorphic AI features to users' continued usage intention (Sfar et al., 2025; Leong et al., 2026). Accordingly, the hypothesis guiding this study is as follows:

H12. Customer experience positively mediates the positive relationship between chatbot anthropomorphism and usage intention.

Effortless interaction with a chatbot is enabled for users by perceived ease of use, contributing to a more satisfying overall experience. Rather than directly translating into continued usage, the benefits of an easy-to-use chatbot are expected to strengthen users' Customer Experience, which subsequently encourages their intention to continue using the chatbot (Hair et al., 2019). Supported in previous AI chatbot studies has been this mediating role of customer experience, demonstrating that positive usage experiences transform users' ease-of-use perceptions into continued usage intention (Sfar et al., 2025; Leong et al., 2026). The discussion above motivates the following hypothesis:

H13. Customer experience positively mediates the positive relationship between perceived ease of use and usage intention.

Performance expectancy reflects users' belief that a chatbot effectively supports the completion of their tasks. When users perceive that the chatbot provides valuable and effective career-related services, these functional benefits are expected to enhance their Customer Experience, which in turn strengthens their intention to continue using the chatbot (Hair et al., 2019). Previous research has likewise identified customer experience as an important mechanism through which performance-related perceptions are translated into continued usage intention (Sfar et al., 2025; Leong et al., 2026). On this basis, the study puts forward the following hypothesis:

H14. Customer experience positively mediates the positive relationship between performance expectancy and usage intention.

Initial trust mitigates user uncertainty during early encounters with an AI chatbot, thereby encouraging more open and active system engagement. This trust is expected to foster a more positive Customer Experience, which subsequently motivates users to continue using the chatbot (Hair et al., 2019). Prior studies have also reported that customer experience mediates the influence of users' trust perceptions on their intention to continue interacting with AI chatbots (Sfar et al., 2025; Leong et al., 2026). From this theoretical basis emerges the following hypothesis:"

H15. Customer experience positively mediates the positive relationship between initial trust and usage intention.

Positive recommendations and social support from key reference groups shape users' initial expectations prior to interacting with a chatbot. These socially driven expectations are likely to enhance Customer Experience, which subsequently increases users' intention to continue using the chatbot (Hair et al., 2019). Consistent with previous AI chatbot research, customer experience functions as a mediating mechanism that translates social influence into continued usage intention (Sfar et al., 2025; Leong et al., 2026). This reasoning yields the following hypothesis:

H16. Customer experience positively mediates the positive relationship between social influence and usage intention.

3. Research Method

3.1 Sample and data collection

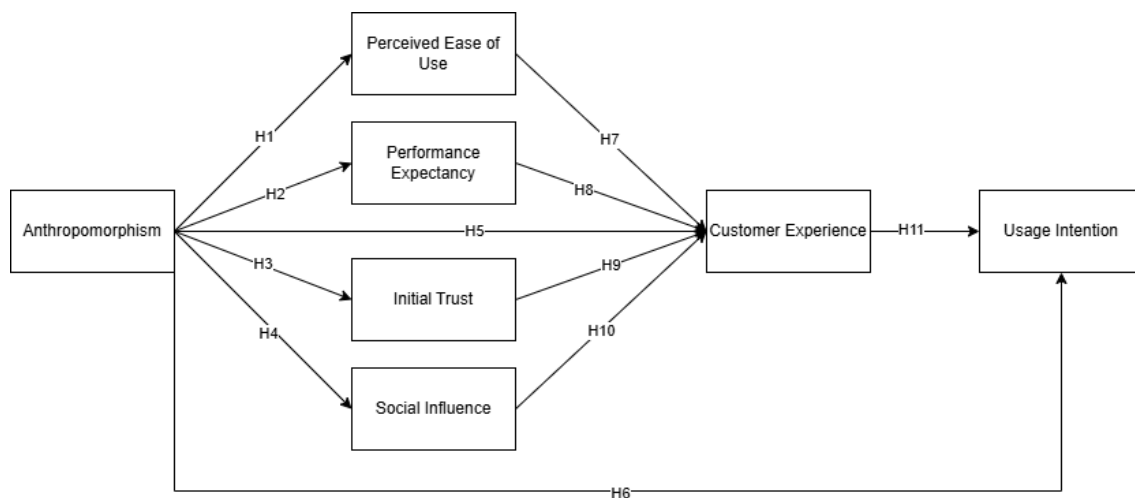


Figure 1. Conceptual Model

Figure 1 presents the study's conceptual model, with anthropomorphism as the central exogenous construct. This investigation utilized a quantitative research design grounded in survey data to examine the associations among constructs in the modified UTAUT model. An online questionnaire distributed to eligible respondents provided the primary data. Adopting a quantitative approach was considered appropriate, given its capacity to yield objective measurements of users' perceptions and behavioral intentions and supports hypothesis testing (Sugiyono, 2017). The dataset was subjected to analysis via Partial Least Squares Structural Equation Modelling (PLS-SEM), an approach capable of evaluating measurement and structural models concurrently across multiple latent constructs (Hair et al., 2019).

The target population consisted of undergraduate alumni of the university who had graduated within the last three years and were potential or actual users of the Patriot Yupi chatbot provided by the university's Career Center. This population was selected because alumni represent the primary users of career-related services, making them the most relevant group for investigating the factors influencing AI chatbot usage intention. According to data provided by the Career Center, the target population comprised 10,329 alumni.

Ascertained via the Slovin formula, with a 5% margin of error (Iba & Wardhana, 2023), was the requisite minimum sample size, a threshold of 385 respondents thereby yielded. Amassed in the course of data collection were 403 valid responses in total, this tally eclipsing the stipulated minimum and affording ample statistical potency for the ensuing analysis.

Purposive sampling, a non-probability technique, was applied to ensure that all respondents met the study's criteria (Sugiyono, 2017). To be eligible, respondents were required to be undergraduate alumni of the university who had graduated within the preceding three years, engaged with Patriot Yupi at least twice over the prior six months, and conducted interactions comprising multiple inquiries. These screening criteria ensured that participants possessed adequate familiarity with the chatbot to yield reliable evaluations regarding their perceptions and usage intentions (de Andrés-Sánchez & Gené-Albesa, 2023).

The questionnaire was distributed online through various official communication channels and university alumni networks, with the assistance of the Career Center. Prior to statistical analysis, all responses underwent a screening process to verify completeness and adherence to the predefined eligibility criteria. The resulting dataset was subsequently analyzed using PLS-SEM to examine both indirect and direct linkages among the constructs identified within the structural model.

3.2 Measures

Measured via questionnaire items adapted from Sfar et al. (2025), and contextualized to the deployment of the Patriot Yupi chatbot within the university's Career Center. Responses to each item were captured using a five-point Likert scale, spanning from 1 ("strongly disagree") through to 5 ("strongly agree"). This scale enabled the quantification of users' perceptions and behavioral intentions for subsequent PLS-SEM analysis. Furthermore, the five-point Likert scale was chosen on the grounds that it yields dependable measurement while remaining easily intelligible to respondents, thereby enhancing response consistency and data quality (Aybek & Toraman, 2022).

4. Results and Discussion

4.1 Research Result

4.1.1 Validity and reliability

Evaluated in this section, by appraising the validity and reliability of the research constructs prior to testing the structural relationships, is the measurement model. Whether the measurement items faithfully represent the constructs they purport to measure is what validity assessment examines, whereas the internal consistency and stability of the measurement instrument is what reliability assessment evaluates (Sugiyono, 2017).

Presented in Table 1 are the descriptive statistics and indicator loadings for all constructs encompassed within the research model. The mean values range from 2.96 to 4.46, whereas the standard deviation figures span a range from 0.578 to 0.966. Among the constructs, the highest mean scores are exhibited by Perceived Ease of Use, followed by Performance Expectancy, Initial Trust, Customer Experience, and Usage Intention. Conversely, the lowest mean values, ranging from 2.96 to 3.25, are registered by Anthropomorphism, while Social Influence ranges from 3.07 to 3.99. Furthermore, the outer loading values of all indicators range from 0.703 to 0.922, signifying that each measurement item satisfies the recommended loading threshold for subsequent measurement model evaluation (Hair et al., 2019).

Table 1. Constructs

Construct	Mean	SD	Outer Loading
Anthropomorphism			
ANTH1. I feel that conversing with Patriot Yupi is like talking to a real human.	3.02	0.793	0.856

ANTH2. I feel that interacting with Patriot Yupi feels natural.	3.08	0.74 2	0.853
ANTH3. I feel that Patriot Yupi understands who it is interacting with.	2.96	0.77 3	0.837
ANTH4. I feel that conversations with Patriot Yupi do not feel rigid or machine-like.	3.25	0.76 5	0.813
Perceived Ease of Use			
PEOU1. I find my interaction with Patriot Yupi to be clear and easy to understand.	4.21	0.65 7	0.829
PEOU2. I find Patriot Yupi easy to use.	4.46	0.57 8	0.777
PEOU3. I find it easy to learn how to use Patriot Yupi.	4.37	0.58 9	0.774
PEOU4. I find it easy to recover from errors when using Patriot Yupi.	4.15	0.65 7	0.711
Performance Expectancy			
PE1. I feel that Patriot Yupi is useful for obtaining career services, such as job vacancy information, curriculum vitae (CV) consultation, and personalized career consultation.	4.34	0.60 0	0.707
PE2. I feel that Patriot Yupi helps me obtain career services quickly.	4.22	0.64 2	0.773
PE3. I feel that Patriot Yupi improves my efficiency in obtaining career services.	4.04	0.68 6	0.860
PE4. I feel that Patriot Yupi helps improve the quality of the outcomes I obtain.	3.81	0.74 0	0.859
Social Influence			
SI1. I feel that people close to me encourage the use of Patriot Yupi i.	3.07	0.72 4	0.891
SI2. I feel that people close to me consider using Patriot Yupi to be beneficial.	3.29	0.66 3	0.891
SI3. I perceive Patriot Yupi as a modern and relevant career service in my surrounding environment.	3.85	0.68 2	0.776
SI4. I feel that using Patriot Yupi reflects openness to technological advancements.	3.99	0.67 1	0.703
Initial Trust			
CIT1. I trust that Patriot Yupi is reliable in providing accurate career services.	4.25	0.63 8	0.823
CIT2. I trust that Patriot Yupi provides consistent and trustworthy services.	4.14	0.60 0	0.809
CIT3. I trust that Patriot Yupi performs its functions as expected.	3.98	0.71 5	0.836

CIT4. I trust that Patriot Yupi can be used properly without interruptions.	4.10	0.67 4	0.704
Customer Experience			
CE1. I enjoy using Patriot Yupi.	4.13	0.74 9	0.841
CE2. I find the experience of using Patriot Yupi interesting.	4.16	0.73 1	0.806
CE3. I am satisfied with my experience of using Patriot Yupi.	3.52	0.92 6	0.904
CE4. I enjoy interacting with Patriot Yupi.	3.59	0.96 6	0.904
Usage Intention			
CUI1. I intend to use Patriot Yupi when I need career services in the future.	3.87	0.74 4	0.867
CUI2. I will probably use Patriot Yupi when I need career services in the future.	3.97	0.65 9	0.824
CUI3. I have decided to use Patriot Yupi when I need career services in the future.	3.41	0.74 2	0.829
CUI4. I intend to continue using Patriot Yupi in the future.	3.64	0.78 7	0.922

Table 2. Convergent validity, discriminant validity, and reliability

	α	CR	AVE	ANTH	CE	CIT	CUI	PE	PEOU	SI
ANTH	0.860	0.905	0.705	0.840						
CE	0.887	0.922	0.748	0.583	0.865					
CIT	0.815	0.872	0.632	0.473	0.525	0.795				
CUI	0.883	0.920	0.742	0.608	0.713	0.482	0.861			
PE	0.816	0.878	0.643	0.525	0.614	0.548	0.558	0.802		
PEOU	0.781	0.856	0.599	0.401	0.433	0.433	0.356	0.315	0.774	
SI	0.844	0.890	0.671	0.501	0.449	0.378	0.496	0.386	0.293	0.819

Table 2 lays out four indicators used to gauge the measurement model's soundness: Cronbach's alpha, Composite Reliability (CR), Average Variance Extracted (AVE), and the Fornell-Larcker criterion. Across constructs, Cronbach's alpha spans 0.781 to 0.887, and Composite Reliability falls between 0.856 and 0.922, both comfortably within accepted thresholds. AVE scores likewise cluster within an acceptable band, from 0.599 to 0.748. Drawing on the Fornell-Larcker criterion, the square root of each construct's AVE (ranging from 0.774 to 0.865) consistently outstrips its correlations with the remaining constructs, a pattern signaling sufficient discriminant validity. Taken together, these figures confirm that every construct in the model meets established benchmarks for reliability, convergent validity, and discriminant validity (Hair et al., 2019).

4.1.2 Structural model and hypotheses testing

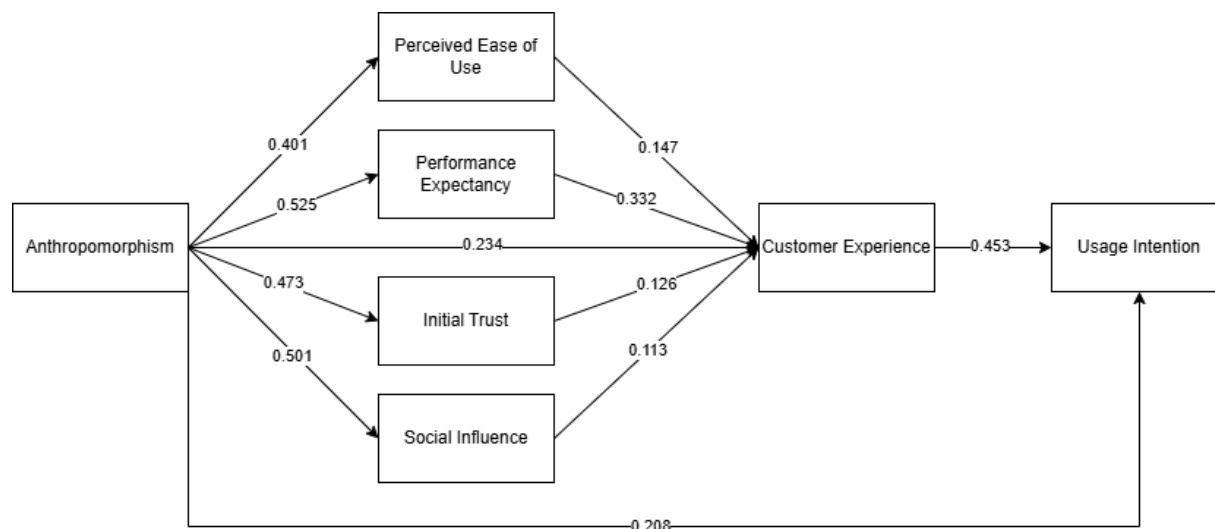


Figure 2. Bootstrapping

Looking at the Figure 2, the bootstrapping results demonstrate that Anthropomorphism exerts a positive influence on all four mediating constructs: Perceived Ease of Use ($\beta = 0.401$), Performance Expectancy ($\beta = 0.525$), Initial Trust ($\beta = 0.473$), and Social Influence ($\beta = 0.501$). Each of these constructs, in turn, contributes positively to Customer Experience, with path coefficients of 0.147, 0.332, 0.126, and 0.113, respectively; among them, Performance Expectancy emerges as the strongest predictor of Customer Experience. Anthropomorphism also exerts a direct effect on Customer Experience ($\beta = 0.234$), suggesting that anthropomorphic design features shape customer experience both directly and indirectly through these perceptual mechanisms. Customer Experience, in turn, emerges as the most influential predictor of Usage Intention ($\beta = 0.451$), while Anthropomorphism additionally shows a direct effect on Usage Intention ($\beta = 0.208$). Taken together, these findings suggest that Customer Experience serves as a central mechanism linking Anthropomorphism to Usage Intention, with Anthropomorphism's influence operating both directly and indirectly through its effects on perceived ease of use, performance expectancy, initial trust, social influence, and customer experience.

Table 3. Summary of hypotheses

Hypotheses	Paths	β	P	Results
H1	ANTH $\rightarrow$ PEOU	0.401	0.000	Supported
H2	ANTH $\rightarrow$ PE	0.525	0.000	Supported
H3	ANTH $\rightarrow$ CIT	0.473	0.000	Supported
H4	ANTH $\rightarrow$ SI	0.501	0.000	Supported
H5	ANTH $\rightarrow$ CE	0.234	0.000	Supported
H6	ANTH $\rightarrow$ CUI	0.208	0.000	Supported
H7	PEOU $\rightarrow$ CE	0.147	0.004	Supported
H8	PE $\rightarrow$ CE	0.332	0.000	Supported
H9	CIT $\rightarrow$ CE	0.126	0.006	Supported
H10	SI $\rightarrow$ CE	0.113	0.005	Supported

H11	CE → CUI	0.451	0.000	Supported
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Table 3 presents an overview of the outcomes obtained from testing the eleven hypotheses (H1–H11), covering each hypothesis code, the corresponding path, its coefficient, the associated p-value, and the resulting decision. Every hypothesis is supported, with p-values at or below 0.006, indicating that all proposed relationships in the model received empirical backing. Among the coefficients, the ANTH → PE path is the strongest (0.525), whereas SI → CE is the weakest (0.113). Taken as a whole, the table offers a concise and accessible summary of the hypothesis-testing outcomes.

Table 4. Indirect Effects

Hypotheses	Paths	β	Results
H12	ANTH → CE → CUI	0.106	Partial mediation
H13	PEOU → CE → CUI	0.066	Full mediation
H14	PE → CE → CUI	0.150	Partial mediation
H15	CIT → CE → CUI	0.057	Full mediation
H16	SI → CE → CUI	0.051	Partial mediation

Hypothesis testing drew on the PLS-SEM approach within SmartPLS, gauging both direct and indirect links among the model's constructs. Figure 2 lays out the bootstrapping results of the structural model, capturing how strong and significant each relationship proves to be. Table 3's direct effects analysis backs all eleven hypotheses, H1 through H11, with path coefficients (β) spanning 0.113 to 0.525 and every relationship clearing the $p < 0.05$ threshold (Hair et al., 2019). Table 4 then turns to indirect effects, where Customer Experience emerges as a mediator across the board. Its role splits into two patterns: partial mediation governs the links from Anthropomorphism, Performance Expectancy, and Social Influence to Usage Intention, whereas full mediation characterizes the paths running from Perceived Ease of Use and Initial Trust to Usage Intention.

5. Conclusion

This study points to customer experience as the mechanism driving how anthropomorphism and the modified UTAUT factors shape usage intention toward Patriot Yupi, which speaks directly to the research question at hand. Empirical testing confirms that all eleven direct paths (H1–H11) are positive and statistically significant. Furthermore, the five indirect relationships mediated by customer experience (H12–H16) demonstrate statistically significant effects, exhibiting a combination of partial and full mediation patterns. These empirical findings indicate that anthropomorphism, perceived ease of use, performance expectancy, initial trust, and social influence affect usage intention not merely through direct pathways, but also by cultivating a favorable holistic interaction experience. Consequently, customer experience serves as a critical bridge that translates users' initial evaluations of AI chatbot attributes into a sustained intention to utilize AI-driven career services within a university context.

The empirical findings establish anthropomorphism as a foundational antecedent shaping user perceptions of Patriot Yupi, as evidenced by its statistically significant positive impacts on perceived ease of use, performance expectancy, initial trust, social influence, customer experience, and usage intention. Anthropomorphic features (the chatbot's avatar, its conversational tone, how it responds) do more than affect usability and utility. They also shape social and emotional dimensions: initial trust, social influence, and the overall customer experience. This pattern aligns with the Computers Are Social Actors (CASA) paradigm, which posits that individuals mindlessly apply social rules to computers and virtual agents displaying human-like cues, thereby allowing social heuristics to color system evaluations and behavioral intentions. In the context of Patriot Yupi, anthropomorphic cues mitigate perceptions of the chatbot as an impersonal or mechanical tool, rendering interactions more natural, familiar, and engaging. These

outcomes resonate with the findings of Sfar et al. (2025) who reported anthropomorphism as a key driver influencing the core determinants of chatbot acceptance. Similar patterns are reflected in broader empirical scholarship, which demonstrates that integrating human-like traits into AI chatbots consistently enhances user evaluations and drives technology adoption (Gefen et al., 2025; Gu et al., 2024). Synthesizing these insights, anthropomorphism represents not merely a surface-level design element but a fundamental antecedent shaping users' functional, social, and emotional perceptions, positioning it as a core driver of AI chatbot acceptance.

The findings demonstrate that customer experience serves as the primary mechanism through which positive user perceptions are translated into usage intention, thereby clarifying how anthropomorphism and the factors in the modified UTAUT model drive AI chatbot acceptance. That customer experience significantly mediates all hypothesized relationships, exhibiting both partial and full mediation effects, is what the mediation analysis reveals. Suggested by these findings is that positive perceptions of the chatbot, including perceived ease of use, performance expectancy, initial trust, and social influence, do not automatically translate into users' intention to persist in their use of the chatbot. Instead, these perceptions are first transformed into meaningful, enjoyable, and satisfying interaction experiences, which subsequently foster sustained usage intention. In other words, customer experience acts as a bridge that connects users' cognitive and social evaluations of the chatbot with their behavioral intention to continue using it. This outcome is in line with what was reported in by Sfar et al. (2025), which identified customer experience as a critical mechanism linking AI chatbot characteristics to usage intention. The present study further reinforces the view that achieving successful adoption of AI chatbots hinges not solely on their ability to meet users' functional expectations but also on their ability to create positive interaction experiences. Consequently, customer experience emerges as the central explanatory mechanism underlying AI chatbot usage intention and provides a direct answer to the research question addressed in this study.

The findings further indicate that the factors in the modified UTAUT model influence usage intention through customer experience, with performance expectancy emerging as the most influential pathway. The mediation analysis reveals that customer experience significantly mediates all hypothesized relationships, exhibiting both partial and full mediation effects, corroborating the findings of Sfar et al. (2025), who similarly identify customer experience as the linchpin connecting users' perceptions to chatbot usage intention. These results lend credence to the UTAUT and TAM frameworks. Across all the constructs examined, the most pronounced direct and indirect effects are exhibited by performance expectancy, intimating that perceived usefulness constitutes the paramount determinant of AI chatbot acceptance within the ambit of career services. Unlike chatbots designed primarily for entertainment or social interaction, career service chatbots are expected to provide accurate information and relevant recommendations that help users achieve specific career-related goals. Therefore, the greater the perceived usefulness of the chatbot, the more positive the customer experience becomes, ultimately strengthening users' intention to continue using the chatbot.

Taken together, the findings frame AI chatbot acceptance as a sequential process unfolding across chatbot characteristics, user perceptions, customer experience, and usage intention. Anthropomorphism sits at the front end of this chain, functioning as the primary antecedent that shapes favorable user perceptions across perceived ease of use, performance expectancy, initial trust, and social influence. These perceptions then feed into a more positive customer experience, which further drives users' intention to keep using the chatbot going forward. This outcome implies that human-like characteristics do not directly lead to sustained usage intention; rather, they influence users' willingness to continue using the chatbot by fostering a positive interaction experience throughout the service encounter. This study provides empirical evidence that customer experience is the central mechanism translating anthropomorphism and the modified UTAUT constructs into AI chatbot usage intention in university career services, directly answering the study's research question.

5.1 Theoretical implications

By extending the UTAUT to AI-driven chatbots within university career services, this study addresses a setting that prior technology acceptance research has largely overlooked. The findings cast anthropomorphism not as a mere

design feature of the chatbot, but as an upstream antecedent that shapes perceived ease of use, performance expectancy, initial trust, social influence, and customer experience (Sfar et al., 2025). Beyond that, as the central link connecting these user perceptions to usage intention, customer experience is confirmed, offering a fuller picture of what propels AI chatbot acceptance. Empirical weight is also lent by these findings to the CASA theory, which holds that human-like traits allow chatbots to shape users' evaluations and behavioral intentions through processes akin to social interaction (Sfar et al., 2025; Gefen et al., 2025; Gu et al., 2024).

5.2 Managerial implications

From a practical lens, the findings hold noteworthy implications for how universities develop AI chatbots for career services that functional performance alone does not guarantee successful implementation. Likewise, the customer's experience matters equally. Strengthened through engaging avatar design, natural conversational styles, contextual responses, and interactions conveying warmth and empathy should be anthropomorphic features by universities, so as to enhance users' trust and comfort during conversations (Borau et al., 2021; Esmark Jones et al., 2022; Hamedani et al., 2025; Kondybayeva et al., 2024; Wang et al., 2026). In addition, accurate, relevant, and readily comprehensible information should be furnished by chatbots, so as to bolster users' perceived usefulness and overall service experience (Kondybayeva et al., 2024). By integrating functional, social, and emotional aspects, universities can develop AI chatbots that more effectively encourage the continuous use of career services.

5.3 Limitations and future research

Several limitations of this study point to potential directions for future inquiry. First, the empirical context was restricted to a career service AI chatbot at a single public university, with data collected exclusively from alumni; this specific sample configuration may constrain the external validity and generalizability of the findings. Further, the reliance on a cross-sectional quantitative survey design limits the capacity to capture qualitative nuances and deep contextual insights regarding user interactions over time. To address these boundaries, future research should validate the proposed structural model across diverse higher education institutions and broader demographic cohorts. Additionally, incorporating mixed-methods or qualitative approaches would offer deeper psychological insights into user experiences. Future research could look at how specific anthropomorphic features (voice, gender cues, emotional expressiveness, visual design) affect outcomes differently. Cross-institutional or cross-cultural comparisons would also help these AI chatbot adoption models generalize better (Sfar et al., 2025; Venkatesh et al., 2003).

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