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Trust me, I'm a Bot: Unraveling AI Chatbot Service Quality's Impact on Continued Use Intention

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Abstract

This study's purpose is to examine the significance of service quality of AI chatbots delivered through entities that are not only practically adaptive but also reliable for potential consumers. This research investigates the relationship between multiple service quality dimensions of AI chatbots and continued use intention via trust in chatbots as a mediating role based on an underlying theory. The research variables have been measured for the first time in the context of AI chatbot services and consumers. The conceptual framework was developed by utilizing insights from pertinent research related to the study subject and was grounded in Technology Acceptance Model (TAM) to understand user beliefs and actions. In this context, research employs a one-time, cross-sectional and quantitative nature, with a sample gathered from 460 users of AI chatbot services based in Lahore. The SPSS Macro Model 4 was designated, and thoroughly produced results indicated an effective association between semantic understanding, human-likeness and efficiency; the multiple service quality dimensions of AI chatbots and continued use intention; and trust in chatbots as a mediator; therefore, all the research hypotheses were validated. In conclusion, the results from this research study will enable companies to gain a competitive edge, and moreover, customers will be more likely to trust chatbot-provided services based on those service quality dimensions.

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Introduction

Chatbots are computer programs that mimic human conversations through text and serve as AI-powered personal assistants. The use of artificial intelligence (AI) and machine learning (ML) has revolutionized these programs. These AI-powered chatbots provide special benefits to businesses, including automating customer support and expediting business-initiated interactions. According to (Wilson et al., 2017), they can comprehend subtle dialogues, acknowledge to user demands with humor, empathy, and understanding, and interact friendly with customers.

The three suggested dimensions of AICSQ-semantic understanding, human-likeness, and efficiency-enhance the professionalism of customer interaction with AI-delivered services. This

professional response improves service quality, leading to increased customer satisfaction and continued use of AI chatbot customer services (Chen et al., 2022). AICSQ helps chatbots reason better to address customer questions and enables self-response due to very high implementation efficiency, which can enhance user stickiness. In a survey by (Chen et al., 2022), it was found that consumers typically want AI bots to understand emotional cues and the content of questions. AI chatbots deliver responses promptly and answer customer inquiries (Chen et al., 2022), although numerous users desires chatbots to demonstrate human-like qualities when providing solutions on social media.

According to Murtarelli et al. (2021) and Nordheim et al. (2019), humanization is a key dimension of human likeness in user experience. Being perceived as human can decrease risk perception for customers, which leads to trust in an AI chatbot. Customers are willing to use high-quality service chatbots; however customer pushback is a significant barrier (Froehlich, 2018).

The key factors affecting trust are acceptance of technology to the extent that it influences behavioral intentions, so businesses need to effectively apply chatbots' service quality dimensions to elevate customer service and enhance customers' trust in chatbots (Chen et al., 2022). Factors affecting adoption and reuse of chatbot-based services include quality of services, trust in chatbots as well as continued use intention. According to research studies, this can diminish customers continued intention to use a product and negatively affect their perception of the company due to language style of chatbot (Dekkal et al., 2023). Moreover, it is important to understand the chatbots provided service quality to boost consumer loyalty and satisfaction (Naqv et al., 2024).

In many organizations, AI chatbots employed in forefront service delivery, exhibit inadequacies in dimensions of a holistic chatbot service quality attributes, including semantic understanding, human-likeness and efficiency. These limitations restrict limit conversation avenues and can lead to feelings of frustration and unsuccessful sales attempts. The objective of this investigation is to illuminate the influence of service quality dimensions on trust development and the continued use intention of services powered by AI chatbots. Additionally, the study connects acquired behavior with intentional action related to chatbot utilization in organizations through the Technology Acceptance Model (TAM) proposed by (Davis, 1989) and trust. The study variables are presented with guidance from pertinent literature. Moreover, the discussion of methodology is followed by the subsequent results. Lastly, the research concludes by addressing its theoretical contributions and practical implications.

Literature review

Semantic Understanding and Continued-Use Intention:

The rise in popularity of AI chatbots has resulted in the emergence of semantic understanding as a critical aspect of service quality. AI chatbots are essential for providing machine-learning solutions to customer queries (Nirala et al., 2022) and enhancing user satisfaction. The assessment of chatbots by consumers depends on how well they can grasp human language and subtle contextual cues. Lee et al., (2002) stressed the importance of "understanding ability" in chatbot service quality, which is how well a chatbot can comprehend human conversation and language complexities as evaluated by users.

Multiple research studies, such as Cronin et al., (2000) and Park et al., (2013), have found a link between service quality content and increased satisfaction levels when chatbots prioritize semantic understanding and effectively resolve user difficulties. If consumers believe that the majority of the content provided by a chatbots is simple to understand, they are more inclined to

agree that their commencing expectations regarding the chatbot's efficiency have been fulfilled (Li and Sung, 2021). According to (Kim et al., 2011) effective quality of service has a positive impact on consumer loyalty, which influences their continued intention to use the service.

Hence, AI chatbots and analytics have improved organizations' capacity to understand and predict user intentions, resulting in an enhanced understanding of user needs and an overall improvement in customer satisfaction and service quality.

Hypothesis 1: Semantic understanding is directly and significantly related to continued use intention.

Semantic Understanding and Continue Use Intention: The mediating role of Trust:

Having a good grasp of semantics is important for building trust with AI chatbots, as it enables them to comprehend and address user inquiries effectively. Quality communication, which involves correct responses, logical dialogue, and precise language, is also crucial for establishing trust. Online chatbots serve as customer-facing entities, influencing customer satisfaction during interactions.

Additionally, Ashfaq et al., (2020) pinpointed key elements that impact customer satisfaction and retention, such as the quality of service, perceived utility, and usability. Fan et al., (2017) discovered that chatbots have difficulty gaining user trust because of inadequate service quality, impacting the overall user experience. The decrease in the level of experience leads to a diminished feeling of autonomy in shopping and enjoyment perception. Kim et al., (2011) proposed that adequate service quality could influence loyalty and continued use intention.

Hence, trust in chatbots based on semantic understanding is essential for continue use and satisfaction, since consumer anticipate reliable services from competent providers.

Hypothesis 2: The relationship between semantic understanding and continued use intention is mediated by the trust in chatbots.

Human-Likeness and Continued-Use Intention:

The ability of AI chatbots to mimic human behaviors and engage consumers in a human-like environment depends on how closely they resemble humans (Rijsdijk et al., 2007). Customers anticipate that AI chatbots will possess human-like traits that reflect their cognitive capabilities (Tian et al., 2017). Chatbots that possess human-like features enhance relationships between companies and customers, creating a more positive view of technology (Li and Sung, 2021).

Developing chatbots that interact in a more natural and engaging way is expected to enhance customer contentment. According to (Al-Oraini, B.S. 2025), this can be accomplished by integrating capabilities that enable chatbots to react with empathy, evoke emotions and participate in genuine two-way conversations with users. Consequently, artificial intelligence developers have changed their focus to developing AI systems that can mimic human empathy (Asada, 2015).

Consequently, when AI responds with empathy, customers tend to follow social norms and societal behaviors, suppressing their dissatisfaction, engaging with the AI positively, and collaborating to address all problems. It boosts users' positive evaluation of the AI follow- up service, enhancing their tendency to continue to use it (Lv et al., 2022).

Hypothesis 3: human-likeness is directly and significantly related to continued use intention.

Human-Likeness and Continue Use Intention: The mediating role of Trust:

AI chatbots' human-like characteristics as a multiple dimension of service quality may enhance trust and create an understanding of intimacy between humans and the modern technology. Even with the widespread use of chatbots by many businesses in the past few years, their adoption by the general public and continued use are still quite limited. According to (Forbes, 2019), eighty-seven percent of users still prefer human engagement over chatbot communication because they think humans are more adept at responding to various questions than chatbots, particularly when it comes to understanding complex circumstances. Recent research by Ashfaq et al., (2020), indicates that buyers feel uncomfortable when they perceive that they are not communicating with a human, as chatbots are perceived as less competent and lacking in empathy, resulting in lower purchasing behavior.

According to (Zamora, 2017), integrating human-like characteristics into computer-based systems can assist in reducing the initial distrust that consumers frequently encounter. Additionally, as highlighted by (Toader et al., 2020), chatbots' perceived abilities, presence on social media, and anthropomorphic design cues can all enhance trust.

Hence, in order to properly promote chatbot usage, it has been considered that human-likeness is essential to recognizing the importance of user trust in AI chatbots (Zierau et al., 2020).

Hypothesis 4: The relationship between human-likeness and continued use intention is mediated by the trust in chatbots.

Efficiency and Continued-Use Intention:

Efficiency is an essential component of the AICSQ, as it relates to how effectively AI chatbots serve consumers (Chen et al., 2022). AI bots are often utilized in industries that involve e-commerce and financial services to increase efficiency, improve customer service, and offer round-the-clock opportunities for engagement (Isiaku et al., 2024). A chatbot is programmed to respond quickly and simply, enhancing its effectiveness in customer engagement. In addition to meaning comprehension and human similarity, responsiveness (efficiency) has also played a role in chatbot service quality rather than other research orientations. Additionally, research has found that the level of responsiveness plays a positive role in users' willingness to use the chatbot, as it is an essential factor in enhancing communication between users and chatbots (Park and Lee, 2022).

Therefore, the efficiency of AI chatbots in delivering effective service impacts consumers' willingness to continue using them.

Hypothesis 5: Efficiency is directly and significantly related to continued use intention.

Efficiency and Continue Use Intention: The mediating role of Trust:

The efficiency of chatbots in delivering service quality is essential for developing trust in them. Users' trust positively impacted by social interaction, which is influenced by perceived personalization, prior experience, and perceived quantity of media (F. Min et al., 2021). In a study, Chen et al., (2022), discovered that chatbots' reliability had a significant impact on users' willingness to reuse them, underscoring the importance of reliability in building user trust. These components will successfully inspire clients to interact with a chatbot again in future, according to Rodríguez Cardona et al., (2019). As stated by J.I. et al., (2020), the trust in a chatbot is directly affected by the reliability of the information it provides, establishing confidence in its reliability.

The findings indicated that chatbots offering effective and reliable services could enhance user trust in AI engagement.

Hypothesis 6: The relationship between efficiency and continued use intention is mediated by the trust in chatbots.

Theory in use

The findings of this analysis offered essential knowledge on the efficacy of chatbots powered by AI and influence on the intention to continue use, especially concerning the mediating function of trust in these chatbots. The Technology Acceptance Model is a crucial instrument to analyze user beliefs and actions, illustrating the significance of perceived value and perceived usability in influencing the consumer's intention. Additionally, trust is an essential element influencing the connection between these important TAM factors and the continued use intention. This research examined how both perceived value and perceived usability of AI-driven chatbots impact attitudes and intentions for continuing to use them, and it was discovered that dimensions of service quality impact these attitudes.

For organizations in Pakistan employing chatbots across different sectors, including customer support, it's essential to consider the crucial importance of trust in enabling ongoing use intention. This review tends to deliver helpful knowledge for researchers, practitioners, and companies looking to improve their AI chatbot implementations by integrating the proposed service quality dimensions, thus promoting continued use intention among users through the synthesis of current knowledge and the identification of gaps.

Theoretical Framework

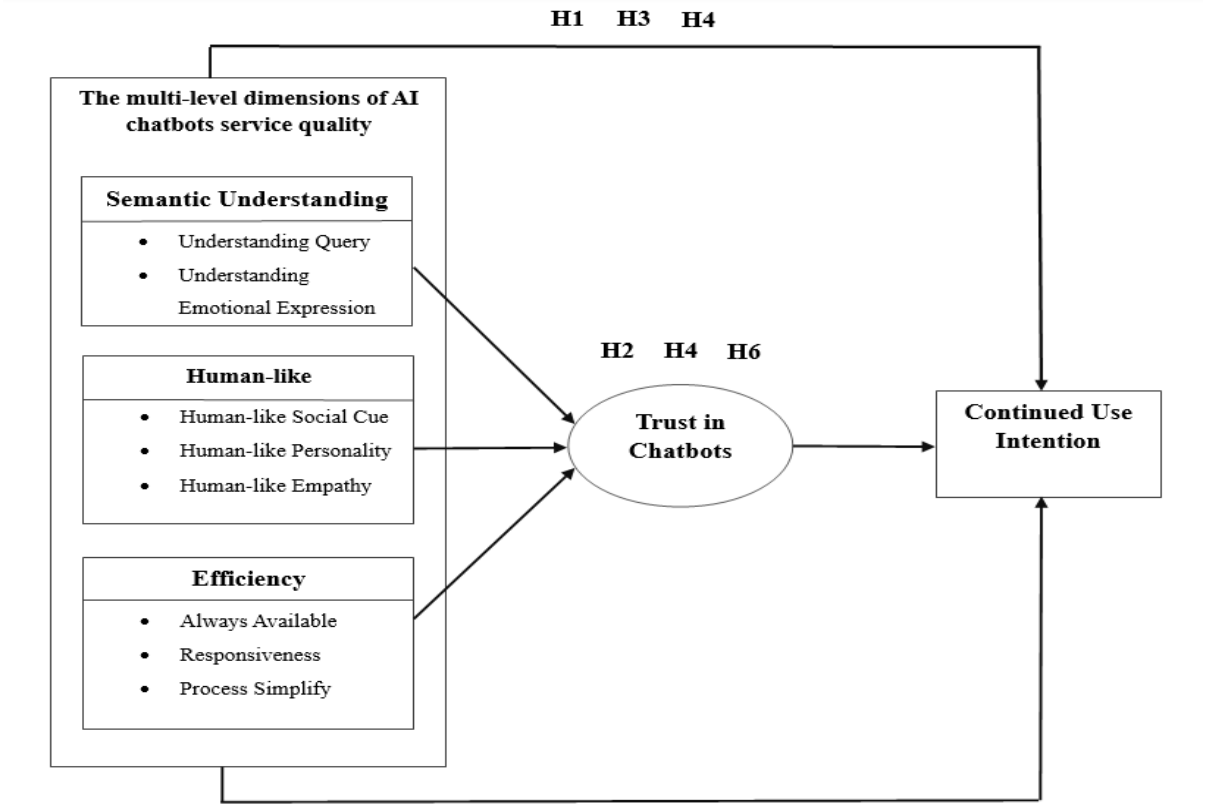

Figure1. Theoretical Framework

Research methodology

The research methodology used to evaluate hypotheses and measure the strength of the connection among the study variables. For this study, sample data was mainly collected from the AI chatbot users in Lahore, Pakistan, to accurately generalize the results to the intended population. For this purpose, a standardized structured questionnaire was used to collect primary data. The study's data collection method is questionnaire because of its effectiveness, speed and cost-effectiveness. Moreover, the presented research study followed a convenience research approach as a result of the substantial number of completed questionnaires gathered within a brief timeframe, classifying it as a cross-sectional study, and the focus of analysis was on individuals, specifically active users of AI chatbots. Thus, it can be concluded that the research settings are non-contrived. For this research, a sample of 460 participants was chosen and taken into account to ensure the reliability and representativeness of the sample. Surveys were distributed to 500 individuals to address the potential for non-responses or incorrect data.

Furthermore, a Likert scale of 5 points was applied for the measurement, with values ranging from 5 (strongly agree) to 1 (strongly disagree) on the selected multiple service quality dimensions. The questionnaire consists of two sections. The first section consists of demographics and other contains questions related to proposed variables. The item scales for independent variables, which include semantic understanding, human-like and efficiency were developed by (Chen et al., 2022) and measured using 39 items. To measure the dependent variable, which is continued use, three items were utilized, and the scale was adapted from the Behavioral Intention Scale (Mathieson, 1991). Lastly, the item scale for mediating variable, trust in chatbots which embraced a total of four items, and scale was adapted from (Corritore et al., 2003). The Cronbach Alpha (0.90) score determines questionnaire reliability, with a value of 0.6 or higher generally considered a sign of strong reliability. For research, a data analysis was conducted using SPSS.

Results and Discussion

Descriptive Analysis:

The mean, standard deviation, correlation and reliability coefficient results for proposed study variables are demonstrate in Table1. The coefficients of correlation indicate encouraging trends, thereby reinforcing our suggested hypothesis statements. The findings indicate a weak positive correlation between semantic understanding and the continue using intention ($r=.32$, $p<0.01$). All analyses indicate a low positive correlation between human-like characteristics and the intention to continue use ($r=.38$, $p< 0.01$). Additionally, a positive relationship exists between efficiency and the intention to continue usage ($r= .33$, $p< 0.01$). Furthermore, the findings ($r=.56$, $p<0.01$) further illustrate a noteworthy and significant positive correlation between trust in chatbots and the intention to continue using them. Moreover, semantic understanding positively correlates to trust in chatbots ($r= .31$, $p <0.01$), while human-likeness has a positive correlation with trust in chatbots ($r=.46$, $p<0.01$). Finally, a strong and positive correlation exists between efficiency and trust in chatbots ($r=.45$, $p<0.01$).

Overall, the results indicate strong relationships between the study variables, as well as the intention of customers to continue using the service and the control variables such as household income. The results also show significant negative relationships between trust in chatbots,

education level, and age. Finally, the results show a substantial correlation between the variable and control variables including household income, age, and education for the intention to continue using.

Table 1: Shows Means, Standard Deviation and Correlation of variables being study

	Mean	SD	1	2	3	4	5	6	7	8	9
Variables											
1. Gender	1.66	0.47									
2. Age	1.84	1.52	-0.58**								
3. Education	3.16	0.76	-0.33**	0.49**							
4. Household Income	3.35	1.64	-0.27**	0.37**	-0.01						
5. SU	2.96	0.60	-0.02	-0.04	-0.06	0.08	**(0.89)**				
6. HL	3.04	0.67	0.17**	-0.08	-0.02	-0.08	0.71**	**(0.90)**			
7. EF	3.95	0.67	0.23**	-0.27**	-0.93*	-0.20**	.025**	0.33**	**(0.93)**		
8. TC	3.38	0.86	0.14**	-0.03	0.02**	-0.19**	0.31**	0.46**	0.45**	**(0.88)**	
9. CUI	3.44	0.71	-0.11*	0.00	-0.33	0.62	0.32**	0.38**	0.33**	0.56**	**(0.77)**

Notes: N=500, Cronbach's alpha shown in parenthesis on the diagonal.
(**). The significance level of the correlation is 0.01(2-tailed).
(*). The significance level of the correlation is 0.05(2-tailed).

Regression analysis using process model 4

Model 1:

The SPSS Process Macro by Hayes Mediation Model 4 was employed to examine the extent to which the positive impact of semantic understanding could likely be outlined on continued use intention via the trust in chatbots as a mediating variable. As a result, the produced outcomes with regression coefficients indicate that (β= 0.2335, p< 0.05) semantic understanding has positive and significant impact on continued use intention as illustrated in Figure 2.

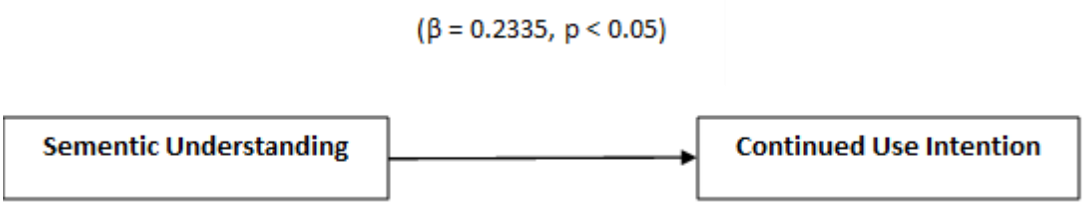

Figure 2

In conclusion, the findings endorse hypothesis statement 1.

Additionally, the results from the unstandardized regression coefficient (β = 0.499, p < 0.05) indicate that semantic understanding significantly influences trust in chatbots; conversely, trust in chatbots significantly affects the intention to continue using them (β = .3298, p < 0.05), suggesting that continue use intention of AI chatbots is affected by both semantic understanding and trust. Lastly, the indirect influence of semantic understanding on continued use intention through trust 0.1482(0.0928, 0.2113) emphasizes the role of trust in chatbots as a mediating factor. As a result, the results reinforce the proposed hypothesis statement 2.

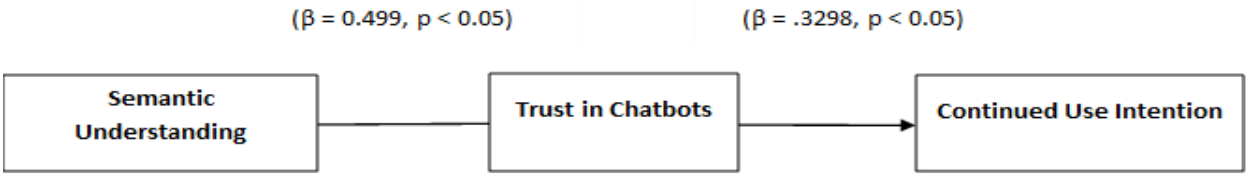

Figure 3 Simple Mediation Model

Table 2: Findings for the mediation model testing how Trust in Chatbots mediates the relationship between Semantic Understanding and Continued Use Intention.

Outcome Variable: TC (Trust in Chatbots)				
Model Summary:				
	R	**R-sq**	**F**	**P**
	0.3134	0.0982	54.2545	0.0000
Direct Effects Model:				
	Coeff	**P**	**LLCI**	**ULCI**
constant	2.0510	0.0000	1.6881	2.4139
SU	0.4495	0.0000	0.3296	0.5693
Outcome Variable: CUI (Continued Use Intention)				

Model Summary:				
	R	**R-sq**	**F**	**P**
	0.4952	0.2453	80.7526	0.0000
Direct Effects Model:				
	Coeff	**P**	**LLCI**	**ULCI**
constant	1.6343	0.0000	1.3262	1.9424
SU	0.2335	0.0000	0.1375	0.3294
TC	0.3298	0.0000	0.2629	0.3967
Indirect effects of X (SU) on Y(CUI):				
	Effect	**BootSE**	**BootLLCI**	**BootULCI**
TC	0.1482	0.0305	0.0928	0.2133

Note: N = 500; LL=Lower Limit, UL= Upper Limit, and coeff = Unstandardized regression coefficient.

Model 2:

The SPSS Process Macro by Hayes Mediation Model was also scrutinized to examine the extent to which the positive impact of human-like could be elucidated on specifically continued use intention, through the trust in chatbots as a mediating variable. The subsequent outcomes with reference to the non-standardized regression coefficient certainly demonstrate a link between human-like features and continued use intention (β = 0.2291, p< 0.05), shown in Figure 4.

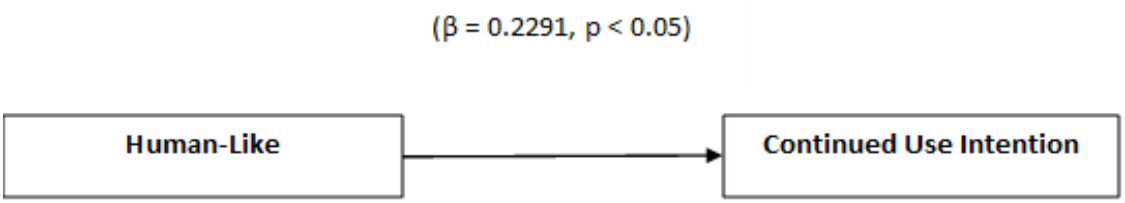

Figure 4

Consequently, the potential results further support our proposed hypothesis statement 3.

Moreover, the relationship between human-like attributes and trust in chatbots has a significant effect (β= 0.600, p<0.05); meanwhile (β= 0.2987, p<0.05) indicates that trust in chatbots significantly influences continued use. Lastly, the indirect influence of human-like on the intention to continue using chatbots via trust 0.1793(0.298, 0.1227) emphasizes the mediating role of trust in chatbots. Resultantly, the outcomes support the suggested hypothesis statement 4, which state that perceived human-like traits significantly enhance to user trust, influencing their intentions to continue using AI chatbots customer services in the future.

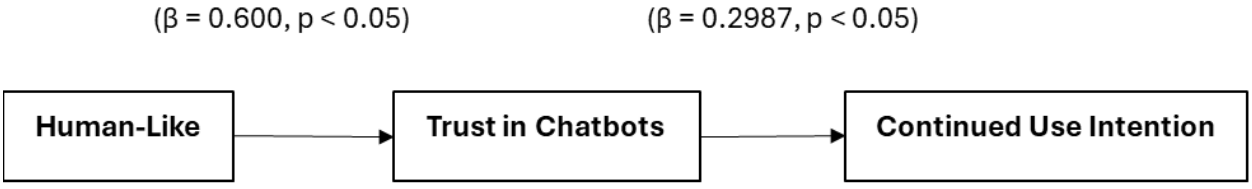

Figure 5 Simple Mediation Model

Table 3: Findings for the mediation model testing how Trust in Chatbots mediates the relationship between Human-likeness and Continued Use Intention.

Outcome Variable: TC (Trust in Chatbots)				
Model Summary:				
	R	**R-sq**	**F**	**P**
	0.4639	0.2152	136.5714	0.0000
Direct Effects Model:				
	Coeff	**P**	**LLCI**	**ULCI**
Constant	1.5592	0.0000	1.2450	1.8733
HL	0.6002	0.0000	0.4993	0.7011
Outcome Variable: CUI (Continued Use Intention)				
Model Summary:				
	R	**R-sq**	**F**	**P**
	0.4963	0.2463	81.1937	0.0000
Direct Effects Model:				
	Coeff	**P**	**LLCI**	**ULCI**
Constant	1.7357	0.0000	1.4565	2.0148
HL	0.2291	0.0000	0.1363	0.3218
TC	0.2987	0.0000	0.2270	0.3704
Indirect effects of X (HL) on Y(CUI):				
	Effect	**BootSE**	**BootLLCI**	**BootULCI**
TC	0.1793	0.0298	0.1227	0.2392

Note: N = 500; LL=Lower Limit, UL= Upper Limit, and coeff = Unstandardized regression coefficient.

Model 3:

The SPSS Process Macro by Hayes Mediation Model 4 was employed to examine the extent to which the positive impact of efficiency could possibly be generalized to continued use intention via the trust in chatbots. The subsequent outcomes with regression coefficients demonstrate positive effect of efficiency on intention to continue use AI chatbots ($\beta = 0.478$, $p < 0.05$) as illustrated, Figure 6. Consequently, the results outcomes sufficiently support our proposed hypothesis 5.

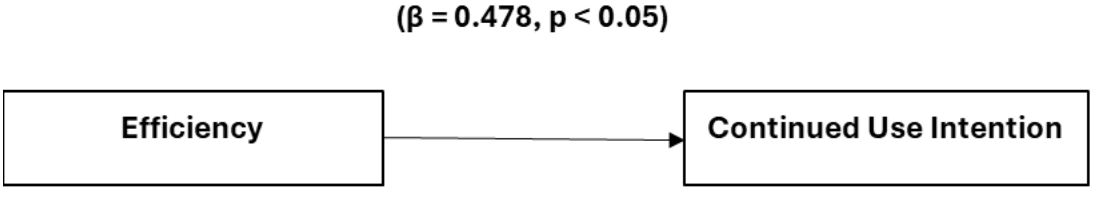

Figure 6

Furthermore, the findings from the non-standardized regression coefficient ($\beta = 0.585$, $p < 0.05$) clearly indicate that efficiency significantly influences trust in chatbots. In contrast, the trust in chatbots has a substantial impact on intention to continue use AI chatbots ($\beta = 0.211$, $p < 0.05$), suggesting that efficiency and trust in chatbots account for changes in continue use intention. Lastly, the relationship between trust in chatbots is demonstrated by the indirect influence of efficiency on continue use intention via trust 0.123(0.025, 0.077). Consequently, the prospective outcomes support the suggested hypothesis statement 6.

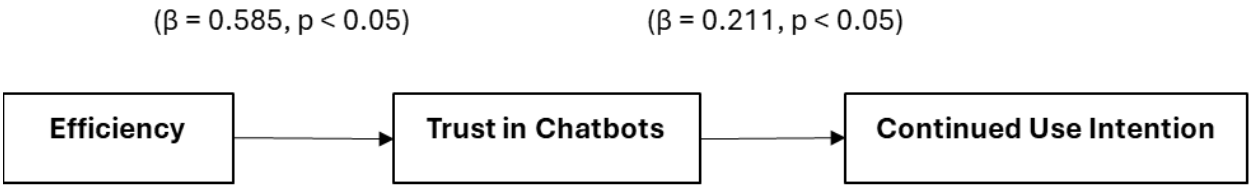

Figure 7 Simple Mediation Model

Table 4: Findings for the mediation model testing how Trust in Chatbots mediates the relationship between Eifficiency and Continued Use Intention.

Outcome Variable: TC (Trust in Chatbots)				
Model Summary:				
	R	**R-sq**	**F**	**P**
	0.456	0.208	130.682	0.0000
Direct Effects Model:				
	Coeff	**P**	**LLCI**	**ULCI**
constant	1.073	0.0000	0.669	1.476
EF	0.585	0.0000	0.485	0.686
Outcome Variable: CUI (Continued Use Intention)				
Model Summary:				
	R	**R-sq**	**F**	**P**
	0.609	0.370	146.131	0.0000
Direct Effects Model:				
	Coeff	**P**	**LLCI**	**ULCI**
constant	0.839	0.0000	0.533	1.146
EF	0.478	0.0000	0.395	0.562
TC	0.211	0.0000	0.146	0.276
Indirect effects of X (EF) on Y(CUI):				
	Effect	**BootSE**	**BootLLCI**	**BootULCI**
TC	0.123	0.025	0.077	0.175

Note: N = 500; LL=Lower Limit, UL= Upper Limit, and coeff = Unstandardized regression coefficient.

The overall findings of the three models indicate that trust in chatbots plays a mediating role in the positive relationship between the intention to continue using AI chatbot services and the multi-level dimensions of AI chatbot service quality, such as semantic understanding, human-likeness, and efficiency. The first dimension semantic understanding aims to boost user confidence by ensuring accurate interpretation of queries asked by users, which encourages them to keep using the service. According to (Nguyen, 2019), the examined how the understanding skills of AI chatbots enhanced user interaction. Furthermore, the significant mediating influence is demonstrated in the positive interaction between of semantic understanding and trust in chatbots. The indirect impact of semantic understanding on continue use intention through trust emphasizes the significance of trust as a mediator, validating the premise that consumers are more inclined to engage with AI chatbots when they believe in understanding skills.

As noted by J.I et al., (2020), trust plays a vital role since it affects both the willingness to reuse the store. As a result, if customers perceive the information offered by a chatbots to be clear, they are more inclined to assume that their provided by a chatbot as clear, they are more inclined to believe that their basic goals for performance have been achieved. The second dimension of human-like characteristics shows a positive relationship between human-like traits in AI chatbots and continued use intention. According to (Araujo, 2018), when a chatbot displays human-like characteristics, users are more inclined to form an emotional bond with the organization. Moreover, the interaction between human-like characteristics and trust in chatbots demonstrates a positive mediating effect on continued use intention. Additionally, the results indicate that AI chatbots with recognized human-like characteristics greatly increase user trust, which influences their intention to use AI chatbot services in the future. The third dimension, efficiency, illustrates that users are more likely to continue with AI chatbot services if they believe they are effective. Additionally, the significant indirect influence of efficiency on the desire to continue using chatbots through trust highlights that users are inclined to interact with AI service provider chatbots that resolve problems like speed by cutting lines and allowing round-the-clock access.

Theoretical and Practical Implications

Improvements in the TAM framework:

This study enhances the Technology Acceptance Model (TAM) by including dimensions of service quality to understand user beliefs and actions, providing a more comprehensive insight into user attitudes towards AI-driven chatbots.

Role of trust as mediator:

The research reinforces the idea that users' intentions to continue using chatbots are shaped by their trust in them, which is consistent with earlier studies on how trust affects technology adoption.

Integrate multiple service quality dimensions of AI:

This research highlights the importance of researchers considering multiple service quality dimensions of AI while assessing technology acceptance models.

Improving the design of AI chatbots:

In practice, organizations prioritize the significance of AI chatbot dimensions for impacting user attitudes and usage intentions, aligning chatbot features with user demands for improved effectiveness.

Initiatives strategic trust-building:

Organizations can promote user trust in chatbots through open discussions, ethical data use, and reliable AI performance, all of which assist in continued usage and trust.

Conclusion

The research examines the relationship between multiple service quality dimensions of AI chatbots and the trust in a chatbot, as well as its influence on continued use intention. The literature endorses the idea that chatbots offering trust and improved service quality positively influence continued intention. Customers who are dissatisfied with chatbot performance exhibit negative continuous intention. The research recognizes that this is a rather broad aspect not particular to Pakistani companies, as it reflects customer behavior. Therefore, it can be stated that it is beneficial for an organization to implement the multi-level dimensions of AI chatbots that enhance customers' intention to continue use. In suggesting this, the research also indicates that this may be achieved via multi-level dimensions of AI chatbots. The results of this research support six hypotheses, establishing that the multi-dimensionality of AI chatbots is a key determinant that positively impacting continued use intention and is positively associated with trust in chatbots. Hence, this study confirms that dimensions of AI chatbots could act as an antidote to facilitate intention to continue use. However, it has less positive effect on continued use intention. The mediation findings suggest that trust in chatbots serves as a mediator between the aspects of AI chatbots and the intention to continue using them. Therefore, the study underlines the need to establish trust with users in order to secure their intention to continue using the service.

Limitations and Recommendations

1. The specific demographic characteristics of the sample may restrict generalizability of the findings.
2. The study's design captures the users' perceptions at a specific period of time; thus, it restricts causality.
3. A longitudinal approach can help obtain a more precise insight into user perceptions, trust, and intention to use.
4. Rapid technological advancement poses difficulties, as the research emphasizes certain dimensions of AI chatbot.
5. Future research should include emerging AI capabilities and features to remain relevant to the latest advancements.

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