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FROM ASSIGNMENT TO AFFECTION: WHAT DRIVES UNIVERSITY STUDENTS TO KEEP USING CHATGPT?

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Abstract:

With the advancement of artificial intelligence (AI) technology, AI tools like ChatGPT have gradually become a part of the life of students in universities. Previous research has mainly addressed the functional aspects of AI, such as information retrieval and academic support, but the socio-emotional and personalized aspects of AI, and how these shape users' continued usage behaviour. Therefore, this study aims to examine the effects of academic support, emotional support, and perceived personalisation on students' continuance intention toward ChatGPT, with perceived trust acting as a mediating mechanism. This research grounded by the Expectation-Confirmation Theory and Information Systems Continuance Model by incorporating two additional variables: perceived personalisation and academic support and emotional support as antecedents of students' continuance intention toward ChatGPT. This quantitative study used an online survey to collect data from 263 university students. The proposed model was analysed using SmartPLS-SEM to examine both direct and indirect relationships, with perceived trust specified as a mediating variable. The structural model indicates that academic support and emotional support have significant direct effects on continuance intention. Although perceived personalisation positively influences user trust, its direct effect on continuance intention is not significant. Instead, perceived

trust fully mediates this relationship, indicating that personalisation alone does not directly drive continued use unless it first builds user trust. These findings highlight the critical role of trust as a psychological mechanism through which AI personalisation translates into sustained user engagement. The study contributes to the literature on human–AI interaction by integrating cognitive, emotional, and personalisation dimensions within a unified continuance framework. Practically, the results suggest that AI developers should prioritise trust-building mechanisms when designing personalised and emotionally supportive systems to ensure long-term user adoption, particularly in educational contexts.

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Keyword:

Academic Support, ChatGPT, Continuance Intention to Use, Emotional Support, Perceived Personalisation, Perceived Trust



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Introduction

The recent spectacular expansion of artificial intelligence (AI), and especially of Generative AI and Large Language Models (LLMs), has been a paradigm shift in the field of higher education. ChatGPT is one of such technologies, which has become a highly powerful tool used for academic and personal purposes by university students. It was first made available as a prototype on 30 November 2022 and began to be available to the public on 30 January 2023 (Roumeliotis & Tselikas, 2023). Since its open-source launch, the ChatGPT has become a regular part of the daily lives of students in the classroom, such as summarizing complex content, generating academic material, debugging code, and even self-directed learning (Baidoo-Anu & Ansah, 2023; Cotton et al., 2024). It marks a general paradigm shift towards AI-assisted learning, where smart systems are becoming an integral part of traditional learning activities.

Beyond its cognitive and functional capabilities, ChatGPT has now evolved to be a conversational agent with affective and socio-emotional capacities. Students are not just becoming more productive through AI usage due to academic tasks but are also using AI to have heart-to-heart conversations, such as asking advice, overcoming stress, and addressing emotional issues (Liu et al., 2026; Skjuve et al., 2021; Ta et al., 2024). ChatGPT's twofold usefulness has transformed it into a thinking and feeling companion. In recent years, ChatGPT have also improved its ability to offer perceived personalisation, with users feeling that the content is relevant, contextually appropriate and individualized, further enhancing the sense of being interacted with by a human. Nevertheless, even though there has been an increasing awareness of this phenomenon, current studies are still fragmented, with many studies examining academic utility and emotional engagement as independent factors. The impact of

these roles on their readiness for the long-term use of AI technologies among students are not yet fully comprehended.

Previous literature on AI adoption has applied the Technology Acceptance Model (TAM) model for the analysis of the early adoption of emerging technologies. While this model has been helpful in understanding the perceived usefulness and ease of use, it's not as effective in predicting post-adoption behaviours, particularly continuance intention. The continuance intention is a crucial in the context of AI-based systems like ChatGPT because it fosters users' dependence, satisfaction, and value perception over time. ChatGPT has been empirically demonstrated to benefit students in their learning, functioning as either a personal tutor or a resource for information seeking (Firat, 2023). Its conversational capabilities resemble social presence and can lead to parasocial interactions when users perceive relational attributes in AI (Ta et al., 2024). The emotional aspect of AI interactions is thus increasingly becoming a crucial factor in user behaviour.

Furthermore, perceived personalisation plays an increasingly significant role in AI interaction, as users tend to perceive ChatGPT as adapting its responses to their individual learning styles, preferences, and contextual needs, which may further enhance engagement and reliance on the system. However, every future development of AI in academic and personal aspects of students raises urgent concerns regarding reliability and ethics, such as hallucinations, algorithmic bias, data privacy, and transparency (Sullivan et al., 2023). Thus, in this aspect, perceived trust is an important construct in human-AI interaction (Cui et al., 2025). The level of trust influences users' willingness to trust AI-generated academic content and share personal concerns in emotional interactions (Thiebes et al., 2021). The role of trust as a factor influencing the acceptance of technology has been well established, but the role of trust to mediate between academic support, emotional support, and perceived personalisation and continuance intention has not been sufficiently explored. To address these gaps, the current study adopts the Expectation-Confirmation Theory (ECT) (Oliver, 1980) and the Information Systems Continuance Model (ISCM) (Bhattacharjee, 2001) as building blocks for the development of an overall framework of post-adoption behaviour. ECT posits that continuance use is determined by confirming user's expectations which results in satisfaction and user behaviour intent. This perspective is extended in this study, which identifies academic support (cognitive value), emotional support (affective value), and perceived personalisation as antecedents of continuance intention, and perceived trust as a mediator that reinforces sustained use of ChatGPT (Al-Emran et al., 2023).

Notably, this study will be conducted within the Malaysian higher education context, where the adoption of AI and the process of digital transformation are still in their early stages and are unevenly examined. The interaction pattern of Malaysian university students with ChatGPT is crucial for understanding because cultural, educational, and technological factors might affect the formation of trust and the pattern of interaction with the chatbot. While AI tools are more and more employed in universities in Malaysia, empirical research that explores the cognitive, affective, and personalisation aspects in relation to continuance intention is still limited.

This research therefore addresses the following questions:

- i. How do academic support, emotional support, and perceived personalisation from ChatGPT influence students' intention concerning continued use?

- ii. What is the mediating role of perceived trust in the relationship between these support functions, perceived personalisation, and continuance intention?

The study brings a novel perspective to the existing field of research on the use of AI, combining the thinking, feeling, and perceived personalisation factors into a coherent theoretical framework. First, it has added emotional support and perceived personalisation not only as important but understudied constructs to ISCM. Second, it clarifies the mediating process of perceived trust in the relationship between the constructs of long-term AI use. Third, it offers context-specific understanding of the Malaysian higher education system, with implications for those educating, policymaking, and developing AI systems to be not only functional but also emotionally and individually responsive, and trustworthy. Eventually, this work contributes to the development of knowledge on sustainable and human-centred AI use in education.

Prior research has shown that ChatGPT can improve students' learning; however, the most common lines of investigation have been on the functional and cognitive dimensions of ChatGPT, such as its perceived usefulness, learning performance, productivity, and technology acceptance. Research examining emotional support has emerged more recently, but it is often treated as a separate phenomenon from academic assistance. On the other hand, perceived personalisation, which reflects users' perceptions that AI responses are tailored to their individual needs and contexts, has been given comparatively little focus in the field of continuance intention studies. As a result, existing literature offers a partial view of student–AI interaction and does not account for the synergies between academic and emotional support and the perceived personalization of these two types of support and their resulting impact on sustained use behaviour. Moreover, limited research has focused on understanding how such factors affect continuance intention in terms of perceived trust as an underlying mechanism. In addition, there has been little research that focuses on the underlying mechanism of how these factors impact on continuance intention, specifically perceived trust. Thus, a more comprehensive framework is needed to explain students' long-term engagement with ChatGPT beyond its immediate functional benefits.

Literature Review and Hypotheses Development

Expectation-Confirmation Theory and Information Systems Continuance Model

According to the Expectation-Confirmation Theory (ECT), subsequent use of a technology is motivated by the extent to which the expectations of users may be met or surpassed, via actual experience and this results in satisfaction and an intention to use the technology in the future (Oliver, 1980). The model Information Systems Continuance Model (ISCM) developed based on ECT identifies the confirmation, perceived usefulness and satisfaction as important factors influencing continuance intention following adoption (Bhattacharjee, 2001). Recent studies have applied these theoretical backgrounds in education and AI. Liu et al. (2026) conducted a study combining ECM, TAM, and task–technology fit, found that confirmation and satisfaction significantly influenced teacher's continued use of AI teaching assistants. Similarly, a study emulates the teaching continuance intentions of higher education using the assistance of ECM where perceived usefulness and satisfaction are found to be significant factors in continued intention to use AI service agents in teaching and learning practices (Akbar et al., 2025). In the context of e-learning, a study on AI have built upon ECT, showed that ECT has been combined with individual innovativeness and expectation confirmation, further supporting the efficacy

of ECT in elucidating the long-term usage of digital learning systems (Herzallah et al., 2025). Furthermore, in the field of learning systems and mobile learning, continuance intention studies of generative AI have found consistent relations between confirmation, perceived usefulness, and satisfaction and continued usage intention (Jung & Jo, 2025).

These works reflect the recent confirmation and applicability of ECT and ISCM in the description of technology continuance in educational and AI situations, thus making them applicable for the current study. Besides, studies on ChatGPT in the educational context found that continuance intentions are closely linked to their satisfaction and favourable perceptions of usefulness, which aligns with the theoretical basis of continuance models in the field of AI chatbots, as studied by Yu et al. (2024).

Continuance Intention to Use

Continuance intention to use is the intention of a user to continue to use the technology on its initial usage and is conceptually and behaviourally different from initial acceptance or adoption (Bhattacharjee, 2001). The notion of continuance intention plays a pivotal role in the post adoption research since the long-term engagement, and not first-time use defines the long-lasting effect of technology in the education process and organisational environment. Theoretically and practically, the issue of continuance intention has garnered increasing attention in empirical studies in digital technologies such as AI and learning systems, supporting its significance in the study of these technologies.

The ECM constructs are applicable in new AI contexts because a recent study by Jung and Jo (2025) in the field of generative AI in education used the Expectation-Confirmation Model (ECM) to elucidate how continuance intention depends on the use of generative AI tools in academic activities is predicted by confirmation, perceived usefulness, and satisfaction, which demonstrated the applicability of the ECM constructs to the new AI technology. Similarly, Liu et al. (2026) found that a combination of task-technology fit, Technology Acceptance Model (TAM), and ECM yielded confirmation and satisfaction as two significant factors in explaining the continuance intention to use AI teaching assistants among university teachers, confirming the applicability of the model to the study of AI adoption and continuance in higher education. Likewise, a study by Liu *et al.* (2026) that combined task-technology fit, TAM, and ECM concluded that confirmation and satisfaction were still strong predictors of continuance intention to use AI teaching assistants in university teachers which showed the relevance of the model to AI adoption and continuance studies in higher education.

Besides formal education technologies, the problem of continuance intention has also been investigated on a larger scale in the area of human-AI interaction. Ngo et al. (2025) have discovered that the quality of interaction, customization, and problem-solving capabilities are strongly related to the continuance intention of Generation Z users towards AI chatbots, which is mediated by satisfaction and trust, highlighting the multidimensional nature of determinants of long-term AI usage. Moreover, empirical study by He and Li (2023) on mobile learning have demonstrated that both autonomy and competence and perceived ease of use are important predictors of the continuance intention of students to use mobile learning platforms, which implies that both cognitive and motivational constructs influence a long-term commitment towards educational technologies. The other evidence gathered in a study carried out by Vasuthevan et al. (2024) regarding the intention to continue with the use of learning

technologies in the normal context, after the pandemic, illustrates the importance of the perceived effectiveness and flexibility to continue with their use in the long-term.

These studies show that cognitive appraisals (satisfaction, usefulness) and contextual and motivational factors (fit, autonomy, trust) are all factors that influence continuance intention, no matter what technology platform is being used, including AI tools and educational support systems. The literature supports that continuance intention is different from initial acceptance and that this should be explored in this study because ChatGPT could have both an academic and an emotional support system in higher education.

Academic Support as a Predictor of Continuance Intention

Academic support is defined as the degree to which the AI tool aids the learners in the cognitive level like content summarization, problem solving, explaining concepts, feedback on academic work, and acquisition of knowledge (Ansari & Qamari, 2025). Recent studies also indicate that user satisfaction and continuance intention to use AI chatbots are positively influenced by their perceptions when they think there are real academic rewards from the AI chatbots' use. According to a study conducted by Yu et al. (2024) that investigated the reasons for users using ChatGPT among 328 students at a college in South Korea, the perceived usefulness and benefits of the tasks performed by the technology were found to be important factors in user satisfaction and user intention. Similarly, in a study of 484 undergraduates, Md-Fared et al. (2026) found emerging evidence on the Malaysian higher education context, as the performance expectancy was shown to be significantly related to academic support and remained a crucial determinant of positive perceptions and the students' willingness to keep using ChatGPT in academic pursuits.

In addition to its overall usefulness, AI-based academic support has been demonstrated to directly affect the learning outcomes and engagement. Research conducted by Lu (2025) with 500 undergraduates of China, revealed that in universities, AI-driven chatbots, in terms of problem-solving and system support capabilities, rank as a top-level tool to increase student satisfaction and interest in using those devices. Similarly, Jiang *et al.* (2025) in a study conducted on 737 samples obtained across eight Southeast Asian universities concluded that cognitive support mechanisms like performance expectancy and learning facilitation, in the context of language learning by AI chatbots, are vital factors in generating user satisfaction and prolonged interaction with AI systems. These results are aligned with the rest of the extensive evidence indicating that AI-based academic support lowers cognitive load, increases task efficiency, and raises perceived usefulness, which are all essential predictors of continuance intention in the context of technology use.

It has also been found experimentally that AI-based learning assistant can significantly reduce the cognitive load of students and improve their performance and motivation, therefore proving the crucial role of AI in supporting students' academic study. These cognitive advantages enhance the perceptions of effectiveness and reliability among the users, which enhances their preference to continue using them. In addition to these results, a meta-analysis confirms that AI systems like ChatGPT are effective to facilitate learning performance, perceptions, and higher-order thinking in various educational settings (Wang & Fan, 2025).

With these empirical results, academic assistance has been found to lessen cognitive burden, better task productivity, and augment perceived utility, positively associated with long-term involvement with technology (Kasneji et al., 2023). These empirical findings suggest that the argument of academic support as a significant utilitarian motive for intention to continue with the use of AI systems in AI-enabled learning environments has good empirical support. Therefore, we posit:

H1: Academic support from ChatGPT is positively associated with students' intention concerning continued use.

Emotional Support as a Predictor of Continuance Intention

Emotional support in human-AI interaction refers to how much an AI system strives to support the user by providing empathy, companionship, stress reduction, and conversation (Ho et al., 2026). This construct is used to demonstrate the affective worth of interactions that can act as a balancing force to the classical utilitarian approach to focus on cognitive performance and task efficiency. Emotional support does not mean instrumental usefulness but social and emotional reactions of the users that can influence further use and user adoption of the technology (Zhang et al., 2025). Xie et al. (2023) found loneliness, trust, and chatbot personification are key factors influencing consumer interactions with social chatbots and in turn shaping the development of a relationship between the consumer and the chatbot, which can lead to psychological dependency. Moreover, the positive impact of the engagement on user-chatbot relationships improvement is reinforced by attachment on the chatbot.

Previous research points out that customers tend to engage AI systems beyond the instrumental aspects of their lives, including social and emotional aspects in their interactions. Dwivedi et al. (2023) argue that generative AI technologies do not just provide functional utility but also provide experiences and affective interactions that can impact subsequent use behaviour. In line with this, Guingrich and Graziano (2023) found that the users of the conversational AI usually give it social and emotional features, perceiving it as a companion or a helpful agent, thus resulting in a higher level of engagement and giving rise to the will to interact with the AI repeatedly.

In today's context, emotional support within the interaction of AI chatbots plays a crucial role in influencing user behaviour in terms of engagement and continued interaction. The affective interface and socially integrated interaction, where the user feels reassured, encouraged and even companioned during their interaction with the system, characterizes AI chatbots, which is not the case with traditional utilitarian systems. The empirical evidence revealed that enabling emotional support by means of chatbot interactions is one of the determinants of the users' behavioural intentions. For this, Zhang et al. (2025) undertook a large-scale study that confirmed that emotional support is an important factor in users' usage intention and in the continuity of usage for chatbots, while also highlighting this as an important psychological process. At the same time, studies conducted under the umbrella of educational chatbots have shown that emotional responses of a person in the process of conversation with the system, including positive affect and perceived emotional involvement have a direct connection with the motivation to continue communication with the system and emotional involvement (Yin et al., 2024). These findings suggest that chatbots are not cognitive and task-oriented interactions but rather are dependent on emotional aspects of their users' experiences. Moreover, the research on continuance intention towards AI chatbots confirms that experiential factors such

as perceived fun and perceived dialogue are key drivers in the user's continuance intention of using AI chatbots (Ngo et al., 2025).

Notably, a recent study by Md-Fared et al. (2026) which specifically test the continuance intention in chatbot settings within the Malaysian context revealed that the university students tend to have positive perceptions and high tendencies of continued use especially when key experiential aspects like usefulness, enjoyment, and enabling conditions are met. In particular, literature has confirmed that emotional support will always enhance users' engagement, satisfaction, psychological attachment, which will finally lead to a higher user continuance intention. Therefore, the emotional support aspect can be postulated as one of the crucial factors affecting the subsequent use intention of an AI chatbot. Thus, we expect:

H2: Emotional support from ChatGPT is positively associated with students' intention concerning continued use.

Perceived Personalisation as a Predictor of Continuance Intention

Perceived personalisation is the degree to which users feel that an AI system can adjust its responses, recommendations and interactions based on their personal preferences, context and needs (Hutmacher & Appel, 2022). Perceived personalisation in conversational AI, like ChatGPT, refers to the impression that the AI system delivers relevant, adaptive responses that resonate with the level of understanding, learning style, and contextual needs of the user. As AI systems become more advanced, they are not just about providing generic information but also about creating personalised and adaptive learning experiences, making this perception more critical.

Recent studies reveal personalisation is a significant factor in user engagement and continuance behaviour with respect to digital technologies. Users are more likely to perceive value from systems in AI-driven environments that are responsive to their unique needs, which increases perceived relevance and usability. He et al. (2024) concluded that personalised recommendation systems can significantly boost user satisfaction and engagement on digital platforms by making recommendations more relevant to users and decreasing their cognitive load. Likewise, Moussawi et al. (2023) noted that personalisation of intelligent systems enhances the perceived usefulness and emotional commitment and thus boosts continued use intention.

Perceived personalisation is particularly crucial in conversations and chatbots, where the interaction and dialogue are made more meaningful by the presentation of the system's user interface. Users may have a high expectation for AI systems to "remember" and adapt to earlier interactions and contexts. Research on AI-based conversational agents highlights that users' perception of personalisation improves user experience, and this is due to the fact that the system is perceived as more intelligent and relational (Blümel et al., 2024). Furthermore, Yun and Park (2022) have proven that the use of personalised responses by chatbots has a significant positive effect on user satisfaction and behavioural loyalty in learning and service environments.

In educational contexts, perceived personalisation has been found to positively impact students' motivation and ongoing use of digital learning materials. For instance, Huang et al. (2023) found that personalised AI-based learning systems enhance students' perceived learning

support and engagement, which ultimately boosts their learning system continuation intention. Similarly, research on AI-powered learning platforms indicates that students who feel they are making good progress in learning, and their system is helping them are more likely to continue using the system, which also enhances their system value (Sajja et al., 2024). But personalisation by itself cannot necessarily ensure continuance intention, even though it is important. Others claim that the translations of personalised experiences into long-term use might only occur when users have trust in the reliability, accuracy, and ethical use of the system (Seridaran et al., 2024). This means that although personalisation increases perceived value, it can have a reinforcing or undermining influence on continuance behaviour, depending on the psychological variables that are involved, including trust.

In conclusion, the literature shows that perceived personalisation can positively affect user experience, perceived usefulness, and user engagement in AI systems. In an environment like ChatGPT, where users have their own unique interactions and preferences, perceived personalisation is likely to be especially important in influencing student attitudes about the likelihood of their continued use of the system for academic and personal purposes. Therefore, it is hypothesised that:

H3: Perceived personalisation of ChatGPT is positively associated with students' intention concerning continued use.

Perceived Trust as Mediator

Perceived trust is the new construct in the context of human–AI interaction, particularly for generative AI tools such as ChatGPT. It refers to the users' belief in the reliability, credibility, and integrity of information generated by AI systems, and is directly linked with their trust and confidence in the AI system to make decisions and complete tasks (Kasneci et al., 2023; Liang et al., 2024). With the rise of AI-powered systems conducting knowledge-based and advisory tasks, users' trust is becoming a key factor in sustaining their interaction with the system. With the emergence of AI-powered systems that are increasingly used for knowledge-intensive and advisory tasks, perceived trust is becoming a key element to ask whether users will continue to interact with these technologies.

In the educational context, particularly when referring to educational outcomes, perceived trust is one of the crucial elements. Previous studies found that perceived trust is positively related to higher adoption and continuance intention of using AI tools, such as ChatGPT, particularly when the user thinks that the system is reliable and matches his educational goals (Shahzad et al., 2024). Even with the best systems, a lack of trust will diminish the use of AI outputs. Furthermore, trust is not just derived from evaluations of the performance of the system, but also from affective and relational aspects of AI experiences. AI's ability to respond, empathize, and understand context makes it appear to know what to say, feels, and feels, and appears socially intelligent and trustworthy to users (Liang et al., 2024; Zhai, 2023). Furthermore, the sense of personalization has become a crucial component in the formation of trust in AI systems. When users feel that ChatGPT is performing a task that aligns with their request, they are likely to perceive it as competent, attentive, and relevant to their needs. This personalised interaction leads to a decrease in uncertainty and an increase in perceived transparency of the system, thereby promoting trust. Previous research on AI-powered service shows that personalisation reflects system intelligence and user orientation, positively influencing the development of trust, especially in interactive and conversational contexts.

In this view, perceived trust may be considered a mediating mechanism which connects user's experiences with users' behaviours. The trust that students build in ChatGPT as a reliable academic assistant, meaningful emotional engagement, and personalised responses create a sense of trust in the system. Such perceived trust, in turn, decreases uncertainty and perceived risk, which in turn increases their intention to continue using the technology. Recent research on AI and information systems indicates that trust serves as a mediator between user experience and continuance intention in digital settings (Liang & Alias, 2025).

Thus, perceived trust can be considered a key psychological pathway through which academic support, emotional support, and perceived personalisation influence students' continuance intention to use ChatGPT. Hence, we postulate:

H4: Perceived trust mediates the relationship between academic support and students' intention concerning continued use.

H5: Perceived trust mediates the relationship between emotional support and students' intention concerning continued use.

H6: Perceived trust mediates the relationship between perceived personalisation and continuance intention.

Figure 1 shows the framework developed for this study.

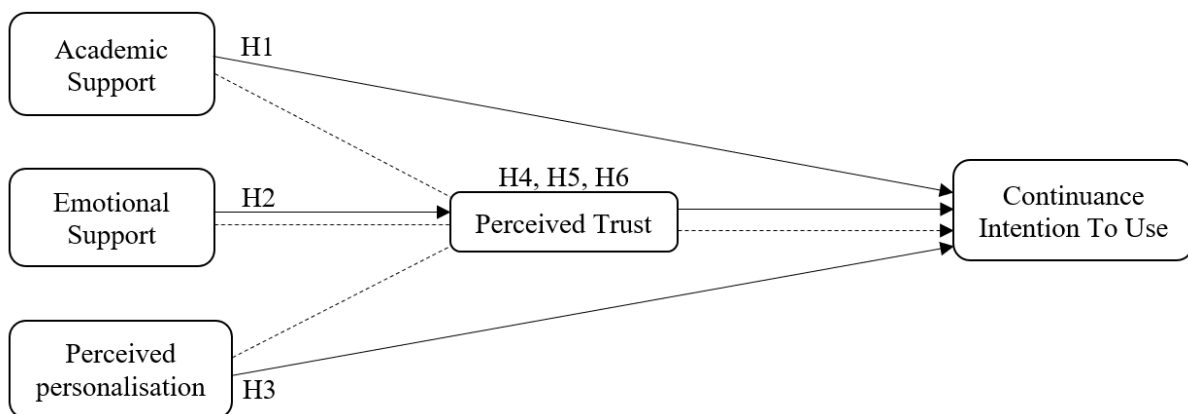


Figure 1: Research Framework (the dashed lines indicate mediation)

Methodology

Research Design

In the present study, the research design used was a quantitative approach with a cross-sectional design to investigate the relationships between academic support, emotional support, perceived personalisation, perceived trust, and continuance intention to use ChatGPT. This design allows for the systematic measurement of key constructs at one point in time (Hunziker & Blankenagel, 2024) and provides a general impression of the student's post-adoption experiences, and their behavioural intentions in relation to AI chatbot usage.

Instrument

This study employed a self-administered survey questionnaire consisting of six sections, namely demographic data of respondents, academic support, emotional support, perceived personalisation, perceived trust, and continuance intention to use ChatGPT. Academic support was measured using a 7-item scale validated by Nemt-Allah *et al.* (2024). The scale suggested by Alshammari (2025) was adapted to measure emotional support. Perceived personalisation was measured using a 4-item scale developed by Lavado-Nalvaiz *et al.* (2022). A 4-item scale proposed by Shahzad *et al.* (2024) was used to measure perceived trust. Lastly, continuance intention to use was measured using an adapted 4-item scale suggested by Sun *et al.* (2025). All constructs were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree).

Sampling and Data Collection

Data were gathered from undergraduate students of a private university in Malaysia using an online self-administered questionnaire. The online platform enabled access to a diverse group of participants, with a variety of academic disciplines, years in study, and prior experience with AI chatbots. The online distribution process enabled effective data collection, especially as students are very familiar with online environments and are often using online tools that incorporate AI, like ChatGPT, in both their learning and personal lives.

A purposive sampling technique was employed, whereby respondents were required to have prior experience using ChatGPT for learning-related or personal support purposes. Respondents who used ChatGPT at least once in the last three months were included in the analysis to ensure the relevance and recency of their experience. This criterion was significant to ensure participants are able to assess their experiences, such as their level of confidence in the technology, the extent of personalisation, and the level of trust on the system.

The questionnaire was shared online and distributed through institutional communication channels and student social media groups related to the chosen university. The online survey is applicable to study the user perceptions and behavioural intentions in relation to AI technologies, which aligns with the recent research on the adoption of ChatGPT in learning (Shahzad *et al.*, 2024; Zhai, 2023). The responses that were received were 275 with 263 recognized as valid after eliminating those suspicious responses.

Data Analysis and Results

Demographic Profile of Respondents

The study obtained 263 valid responses from undergraduate students of five different faculties in the selected university, ranged from different age groups and year of study. Among these respondents 43.3% were male and 56.7% were female. Table 1 shows the detailed composition of the respondents' profile.

Table 1: Respondent's Profile (n=263)

Demographic	Categories	Frequency	Percentage (%)
Gender	Female	114	43.3
	Male	149	56.7
Age group	19-21	112	42.6
	22-24	138	52.5
	Above 24	13	4.9
Faculty	FAS	50	19.0
	FEGT	53	20.2
	FICT	54	20.5
	FSc	54	20.5
	THPFBF	52	19.8
Year of study	Year 1	104	39.5
	Year 2	68	25.9
	Year 3	39	14.8
	Final Year	52	19.8

Assessment of Measurement Model

Convergent validity was assessed using average variance extracted (AVE), composite reliability (CR), Cronbach's alpha (CA), and factor loadings. An AVE value of 0.50 or higher indicates that a construct explains more than half of the variance of its indicators, while CR values between 0.70 and 0.90 are considered satisfactory (Hair *et al.*, 2022). Factor loadings that are 0.70 and above can be considered as satisfactory, indicates sufficient reliability (Hair *et al.*, 2013). The Cronbach's alpha was also reported as an indicator of internal consistency reliability. Table 2 shows the factor loadings, along with AVE, CR, and CA, all are within the acceptable threshold values.

Table 2: Convergent Validity

Constructs	Measurement Items	Loadings	AVE	CR	CA
Continuance Intention To Use (CITU)	CITU1	0.916	0.791	0.938	0.912
	CITU2	0.887			
	CITU3	0.864			
	CITU4	0.891			
Academic Support (AS)	AS1	0.833	0.667	0.933	0.916
	AS2	0.758			
	AS3	0.875			
	AS4	0.811			
	AS5	0.883			
	AS6	0.720			
Emotional Support (ES)	ES1	0.800	0.738	0.944	0.929
	ES2	0.829			
	ES3	0.889			
	ES4	0.896			
	ES5	0.859			

	ES6	0.878			
Perceived personalisation (PP)	PP1	0.896	0.752	0.924	0.895
	PP2	0.841			
	PP3	0.874			
	PP4	0.857			
Perceived Trust (PT)	PT1	0.885	0.717	0.910	0.869
	PT2	0.792			
	PT3	0.901			
	PT4	0.804			

Besides convergent validity, discriminant validity was also determined so that the distinctiveness of the constructs is seen. The HTMT analysis was performed, where the value smaller than 0.85 represents a sufficient level of discriminant validity (Hair *et al.*, 2022). Table 3 indicated that all of the HTMT values are within the acceptable range of values, which proved satisfactory discriminant validity.

Table 3: Discriminant Validity (HTMT)

Constructs	AS	CITU	ES	PP	PT
Academic Support (AS)					
Continuance Intention To Use (CITU)	0.848				
Emotional Support (ES)	0.723	0.686			
Perceived Personalisation (PP)	0.141	0.12	0.221		
Perceived Trust (PT)	0.832	0.823	0.652	0.089	

Structural Model Assessment

Direct Relationships

Table 4: Assessment of Structural Model (Direct relationships)

Hypotheses	Beta	SD	<i>t</i>	<i>p</i>	Decision
H1 AS → CITU	0.440	0.059	7.474	0.000	Supported
H2 ES → CITU	0.143	0.052	2.720	0.007	Supported
H3 PP → CITU	-0.024	0.036	0.667	0.505	Not Supported

Table 4 and Figure 2 show the results of the direct-effect hypotheses tested in this study. The first hypothesis (H1) examined the relationship between academic support and continuance intention to use. The results indicate a positive and statistically significant relationship ($\beta = 0.440$, $SD = 0.059$, $t = 7.474$, $p < 0.001$). This suggests that higher levels of academic support from ChatGPT are associated with a stronger intention among students to continue using the system. Therefore, H1 is supported.

The second hypothesis (H2) examined the relationship between emotional support and continuance intention to use. The results indicate a positive and statistically significant relationship ($\beta = 0.143$, $SD = 0.052$, $t = 2.720$, $p < 0.01$). This suggests that higher levels of emotional support from ChatGPT are associated with a stronger intention among students to continue using the system. Therefore, H2 is supported.

The third hypothesis (H3) examined the relationship between perceived personalisation and continuance intention to use. The results indicate that the relationship is not statistically significant ($\beta = -0.024$, $SD = 0.036$, $t = 0.667$, $p > 0.05$). This suggests that perceived personalisation does not have a significant effect on students' intention to continue using ChatGPT. Therefore, H3 is not supported.

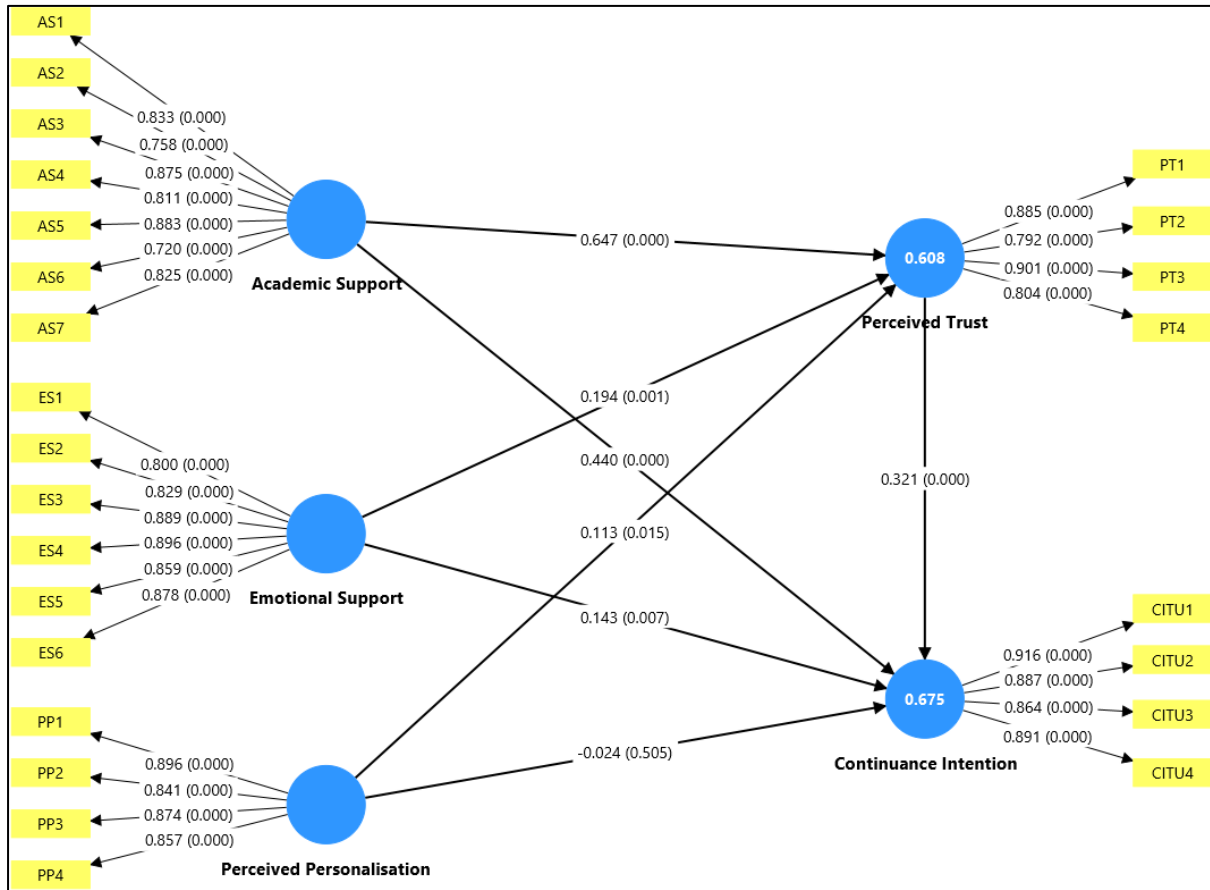


Figure 2: Structural Model

Indirect Relationships

Table 5: Assessment of Structural Model (Mediation)

Hypotheses	Beta	SD	t	p	Mediation	Decision
H4 AS → PT → CITU	0.208	0.044	4.692	0.000	Partial	Supported
H5 ES → PT → CITU	0.062	0.024	2.607	0.009	Partial	Supported
H6 PP → PT → CITU	0.036	0.017	2.076	0.038	Full	Supported

Table 5 shows the results of mediation analysis, which perceived trust significantly mediates the relationships between academic support, emotional support, and perceived personalisation with continuance intention. Specifically, the indirect effects of academic support ($\beta = 0.208$, $SD = 0.044$, $t = 4.692$, $p < 0.001$) and emotional support ($\beta = 0.062$, $SD = 0.024$, $t = 2.607$, $p < 0.01$) on continuance intention through perceived trust are significant, while their direct effects are also significant. This indicates partial mediation, suggesting that both academic and emotional support influence continuance intention both directly and indirectly via perceived

trust. Thus, these support functions not only promote continued use on their own, but they also boost trust, thereby also increasing the intention to continue using ChatGPT by students. Therefore, both H4 and H5 are supported.

Meanwhile, perceived personalisation was found having significant effect on continuance intention through perceived trust ($\beta = 0.036$, $SD = 0.017$, $t = 2.076$, $p < 0.05$). This indicates full mediation, suggesting that perceived personalisation influences continuance intention only through the development of trust. This finding implies that personalised interactions alone are insufficient to drive continued usage unless they foster confidence in the system. In other words, students do not continue using ChatGPT simply because it provides tailored responses; rather, they are more likely to continue using it when such personalisation enhances their trust in the system's reliability, relevance, and credibility. Therefore, H6 is also supported.

These findings reveal the critical role of perceived trust as a crucial psychological mechanism in human-AI interactions. The academic support and emotional support have both direct and indirect impacts on continuance intention, whereas perceived personalisation acts only indirectly via the mediator (perceived trust). It highlights the value of creating AI systems that not only provide individualised experiences but also foster and maintain user trust to drive long-term engagement.

Coefficient of Determination

The coefficient of determination (R^2) was used to assess the explanatory power of the structural model (Ghafar *et al.*, 2025). According to Hair *et al.* (2022), an R^2 value of 0.75 indicates substantial explanatory power, 0.50 indicates moderate explanatory power, and 0.25 indicates weak explanatory power. In the present study, as shown in Figure 2, the R^2 value for perceived trust is 0.608, indicating a moderate level of explanatory power. This suggests that academic support, emotional support, and perceived personalisation jointly explain approximately 60.8% of the variance in students' trust towards ChatGPT. Meanwhile, the R^2 value for continuance intention to use is 0.675, which reflects a moderate-to-strong level of explanatory power. This indicates that the proposed model, which including academic support, emotional support, perceived personalisation, and perceived trust is adequately explains students' intention to continue using ChatGPT. Overall, these results demonstrate that the structural model has satisfactory predictive capability in explaining both trust formation and continuance intention among university students.

Discussion

The aim of this study was to investigate how academic support, emotional support, and perceived personalisation influence university student's continuance intention for using ChatGPT and how perceived trust acts as a mediator. The results indicate that academic support is quite positively and significantly related to continuance intention. This validates the fundamental principle of ISCM that perceived usefulness is a crucial factor in explaining continuation of use (Bhattacharjee, 2001). Academic support represents cognitive value, which is characterized by problem solving support, content explanation and knowledge enhancement (Ansari & Qamari, 2025). The relatively large effect size also suggests that students value the functionality and performance of ChatGPT for their decision to keep using it.

Emotional support also reveals significant effect on continuance intention. The results align with the emerging trend of viewing AI as a relational and affective tool in addition to its functional role. This can be explained through social presence and parasocial interaction, where users perceive AI as socially meaningful and develop emotional connections (Zhang et al., 2025).

For perceived personalisation, while the direct effect is insignificant, the mediation shows significant indirect effect through perceived trust, suggesting that the effect of perceived personalisation is fully mediated by perceived trust. In other words, students are not motivated to continue using ChatGPT merely because it provides tailored responses; rather, they are more likely to continue when such personalisation enhances their confidence in the system's reliability, relevance, and appropriateness. This is a particularly noteworthy finding. Unlike academic support and emotional support, which exert both direct and indirect effects on continuance intention, perceived personalisation influences sustained ChatGPT usage only through trust formation. This suggests that personalised AI interactions alone are insufficient to encourage continued use unless they also strengthen users' confidence in the system. In other words, students are more likely to continue using ChatGPT not simply because it appears tailored to their individual needs, but because such personalised experiences foster trust in the accuracy, reliability, and relevance of the system. This finding represents a key contribution of the study, highlighting trust as the critical mechanism through which personalisation translates into long-term AI engagement.

Overall, the results highlight the importance of perceived trust as a psychological mechanism in human–AI interaction. Academic support and emotional support have both direct and indirect impacts on the continuance intention, whereas perceived personalisation only has an indirect impact through trust. The results go beyond the current literature on continuance intention by showing that the effects of relational and personalised AI experiences are mediated by trust building, thus further emphasizing the role of trust in understanding the continuance of AI use in educational contexts.

Theoretical Contributions

This study offers several important theoretical contributions. First, it extends Expectation-Confirmation Theory (ECT) and the Information Systems Continuance Model (ISCM) by incorporating emotional support and perceived personalisation as relational and experience-based factors that influence continuance behaviour. In addition to perceived usefulness, confirmation and satisfaction, the emotional experiences and perceived personalised interaction also influence continuance intention in AI-mediated environments. This extends the explanatory range of both theories beyond utilitarian assessments and also captures the dynamic shifts in human-AI relationships. Second, the study contributes to the literature on continuance intention by integrating the three dimensions of cognitive (academic support), affective (emotional support), and personalised (personal factors) in one holistic model. In the past studies, the factors have been studied separately and therefore obtained fragmented understanding of user behaviour. By examining their simultaneous effects, this study gained a deeper understanding of the factors that contribute to the sustained use of ChatGPT in higher education. Third, the results revealed that perceived trust is a critical psychological mechanism between user experiences and continuance intention. Notably, while academic support and emotional support exhibit partial mediation, perceived personalisation demonstrates full mediation through trust, indicating that personalised AI experiences influence continuance

behaviour primarily through the development of trust. These findings contribute to the understanding of human–AI interaction research by providing insight into the steps from relational to experiential to usage behaviour. Last but not least, the study offers empirical evidence from the context of higher education in Malaysia, a context that has not been sufficiently addressed in the field of AI. The results indicate that although overall trends in AI adoption hold true, factors may affect the relative weight of the cognitive, affective, and personalised factors of continuance intention.

Practical Implications

The study offers a number of practical implications for educators, policymakers, and AI developers. The results show that the use of ChatGPT in the educational context should be directed towards its instructional and problem-solving features, which suggests that it will continue to be used by teachers. At the same time elements will be added which will make learning more emotional and personalised, thus enhancing the experience and motivating students. The conclusions highlight the importance of policy frameworks and educational systems to give guidelines for the use of AI tools, so that they can be integrated and developed in a trusting, ethical and transparent way. The key takeaways highlight the importance of standards for trustworthy, responsible, and transparent use of AI tools that enable continued integration and development of these tools by policy makers and education institutions. The key is to prepare students to harness the potential of AI and mitigate risks through this capability, and that means ensuring they have access to understanding and critical thinking skills to evaluate AI use. Additionally, it is crucial to educate students on the benefits and risks of using AI so that they can use it in the most beneficial way and minimize the risk. The complete mediation effect of trust is especially significant for the development of AI, and for higher education institutions. The results suggest that personalised AI interactions, alone, are not directly incentivising long-term use, but they could be with an improvement in user trust. Therefore, when seeking to drive adoption: they need to provide tailored and context-specific responses, but also ensure it is transparent, trustworthy, reliable and data private. Some of these features, including source attribution, transparency on system limitations, privacy safeguards, and quality of response in general, might be able to better drive long-term engagement than personalisation features alone. This means that institutions and developers need to pay special attention to AI interactions that are not only transparent and trustworthy but also are personalized, to foster continued use, and not merely customisable features.

Limitations and Future Research

This study has several limitations. First, the study was conducted among participants from a single private university. As such, the findings may have limited generalisability to other higher education institutions and contexts. The results of this study encourage future research to replicate the study in other cultural and educational contexts to explore if there are any differences in the effects of academic support, emotional support and perceived personalization on the continuance intention as a result of such study. In addition, although the study has concentrated on the constructs identified through ISCM and ECT, further study can be conducted that incorporates other constructs or variables like dependency on AI, satisfaction, perceived risk, etc. Specifically, there is a need to examine in more detail the situations in which perceived personalisation can have an immediate effect on continuance intention, such as the level of trust, transparency of the system, and the skill of the user. These would ensure more

understanding of the part played by personalisation in influencing adoption and continuation of AI behaviour.

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APPENDIX

Questionnaire Survey:

Academic support:

1. "I use ChatGPT to paraphrase complex academic concepts for better understanding".
2. "ChatGPT helps me develop counterarguments to strengthen my academic writing".
3. "I use ChatGPT to generate ideas for my academic writing".
4. "I use ChatGPT to generate drafts that I edit and finalize myself".
5. "ChatGPT assists me in finding relevant sources or references for my research".
6. "ChatGPT saves me time and effort in academic writing".
7. "ChatGPT allows me to explore ideas that I may not have considered on my own".

Emotional support:

1. "The AI tool understood my emotional needs".
2. "I felt more supported after using the ChatGPT intervention compared to other methods of seeking help".
3. "The AI responses were empathetic and helpful in addressing my concerns".
4. "The AI tool provided practical advice for managing stress, anxiety, or other emotional challenges".
5. "The AI tool helped me feel more in control of my emotional well-being".
6. "I experienced emotional or psychological benefits from using the AI tool that I had not anticipated".

Perceived Personalisation:

1. "ChatGPT provides responses that are customised to my needs".
2. "ChatGPT personalises its responses based on my inputs and interaction".
3. "ChatGPT anticipates what I need and provides relevant information".
4. "ChatGPT demonstrates a good understanding of my needs".

Perceived trust:

1. "I trust that all activities I perform on ChatGPT will be confidential and secure".
2. "I feel that ChatGPT would maintain the privacy of my personal data".
3. "I believe that ChatGPT will prevent unauthorized access to my personal information".
4. "I believe using ChatGPT for interaction is sufficiently secure".

Intention concerning continued use:

1. "I intend to continue using ChatGPT for academic support".
2. "I intend to continue using ChatGPT for emotional support".
3. "I plan to recommend ChatGPT to others for both academic and emotional support".
4. "Overall, I intend to continue using ChatGPT to support both my learning and emotional well-being".