

Exploring Users' Continuous Use Intention of ChatGPT based on the IS Success Model and Technology Readiness

Hsiu-Ju Chen¹, Shu-Ting Chang², Pei-Yu Chou³, Yu-Shiou Tsai⁴, Che Chu⁵, Feng-Cheng Hsieh⁶, Guan-Yin Tseng⁷

Department of Information Management, I-Shou University, Kaohsiung City, Taiwan

DOI: <https://doi.org/10.56293/IJMSSSR.2024.4833>

IJMSSSR 2024

VOLUME 6

ISSUE 1 JANUARY - FEBRUARY

ISSN: 2582 - 0265

Abstract: With the rapid rise of Artificial Intelligence (AI), the emergence of ChatGPT has accelerated the popularization of generative AI, marking a milestone in the large-scale commercial application of generative AI. This study primarily adopts the framework of Parasuraman's (2000) Technological Readiness (TR) and DeLone & McLean's (2003) Information System Success Model (ISSM) to explore users' intention to continue using ChatGPT. The independent variables include system quality, information quality, service quality, optimism, and adaptability; satisfaction serves as the mediating variable, and the dependent variable is the intention to continue use. The research results show that optimism significantly positively influences the intention to continue use. Information quality and service quality have a significantly positive impact on satisfaction. Additionally, users' satisfaction with the use of ChatGPT significantly positively influences their intention to continue using the system. The research findings contribute to information policies related to ChatGPT. They also reflect the psychology of users' continuous intention to use ChatGPT.

Keywords: ChatGPT, technology readiness, the IS success model, continuous use intention.

1. Introduction

ChatGPT was launched by the artificial intelligence research organization OpenAI at the end of November 2022, and its free access for users quickly sparked a wave of enthusiasm. Microsoft co-founder Bill Gates pointed out that ChatGPT will change our world, believing that this AI chatbot has the potential to revolutionize the way we work and search for information. The significance of innovative programs like ChatGPT is comparable to general artificial intelligence (AI), as it can help users operate more efficiently, answer user queries as a chatbot, and generate various types of text using trained models, such as news headlines, research papers, and conversations. In conclusion, Bill Gates expressed his attitude towards ChatGPT, stating, "It gives a glimpse of what is to come. I am impressed with this whole approach and the rate of innovation."

In recent years, due to the continuous advancement of technology, artificial intelligence (AI) has gradually become more widespread. The introduction of ChatGPT has highlighted its importance and irreplaceability. Therefore, this study aims to explore users' continuous intention to use ChatGPT, focusing on information system success models and incorporating technological readiness to examine information users' intentions to choose ChatGPT. The research objectives are to investigate the perspectives and opinions of various organizations on the use of ChatGPT, to examine the relationship between system quality, information quality, service quality in the information system success model, and user satisfaction with ChatGPT, to explore the relationship between optimism, adaptability in technological readiness, and users' intention to continue using ChatGPT, and to investigate the impact of satisfaction on users' continuous intention to use ChatGPT.

2. Literature Background

Introduction to ChatGPT

At the end of November 2022, ChatGPT was launched by the American artificial intelligence research lab OpenAI. It is an advanced AI technology that, through extensive data training, learns and internalizes a vast amount of knowledge, thereby possessing language abilities closely resembling those of humans (Cheng & Wu, 2023). Unlike using search software or web search functions, ChatGPT is more inclined to integrate data from all web pages, organizing it into information for the user's perusal. During its promotional period, ChatGPT was available for free use, and in Taiwan, anyone with a computer or smartphone and a web browser could access ChatGPT's related functions. Paid users could access more advanced features (possibly still in development or already developed).

ChatGPT has various limitations acknowledged by OpenAI, admitting that it "sometimes produces answers that seem reasonable but are incorrect or nonsensical" (OpenAI website, 2022). Despite the room for improvement in stability and accuracy when answering questions, and its inability to replace technologies and professions requiring a more human touch, this invention represents a significant advancement in the field of artificial intelligence. Piper (2022) on the Vox website mentioned, "So ChatGPT is the general public's first hands-on introduction to how powerful modern AI has gotten, and as a result, many of us are having our version of the Gawdat moment."

The impact of ChatGPT

With the recent advancements in artificial intelligence (AI), the ChatGPT trend has become a widely discussed topic. Students are utilizing it for tasks such as paper writing and class presentations, leading to concerns about issues related to copyright and plagiarism. In Taiwan, most universities are adopting a "wait-and-see" approach, with discussions not yet reaching a consensus on potential prohibitions (Li, 2023). Some universities have recently formed working groups to investigate the potential impacts of ChatGPT. This matter is being deliberated not only within university committees but also at a higher level, with the Ministry of Education actively seeking opinions from university presidents (Central News Agency Information Platform, 2023). The objective is to guide students in using ChatGPT and similar software as learning aids rationally and responsibly.

In response to the increasing use of AI-generated content and its potential negative effects, various countries are starting to establish regulatory frameworks. These regulations aim to prevent undesirable consequences of AI use and create a more secure and comprehensive environment for users, achieving a balanced state of affairs. Table 1 summarizes different attitudes of foreign institutions towards ChatGPT.

Table 1 overview of attitudes and perspectives of foreign institutions

FOREIGN SCHOOL OR GOVERNMENT UNIT	APPROVAL OR DISAPPROVAL	PERSPECTIVE	SOURCE
University of Hong Kong	Disapproval	Prohibits the use of ChatGPT or other AI tools in all classes, assignments, and assessments, citing concerns about plagiarism. The University of Hong Kong is the first university to explicitly ban such practices.	Chang & Chen / Central News Agency (2023)
New York Public Schools	Disapproval, but rescind the ban in May	The New York City Department of Education is concerned about the potential negative impact on students and questions the authenticity and security of output content. Although the tool can quickly provide answers, it does not foster critical thinking and problem-solving skills, hindering academic and personal development. However, it removed the ban in May.	Chen / TechNews (2023) Rosenblatt/NBC News(2023)
Sciences Po (Paris Institute of Political Studies)	Disapproval, but open discussion about AI	Prohibits students from using ChatGPT and other AI programs for reports, unless required by teachers in class. Violations may lead to	Bloomberg / Liberty Times (2023)

	programs later	expulsion. Views ChatGPT as a significant issue that the education sector needs to address, especially regarding content plagiarism issues. Although it disapproves of students' use of AI programs, it implements rules and opens up discussion about AI in higher education later.	
The Wharton School, University of Pennsylvania	Approval	Associate Professor Morik encourages students in his "Entrepreneurship and Innovation" course to use AI programs, requiring them to use ChatGPT as an auxiliary tool for assignments or reports. Morik believes that AI has become an emerging technology and emphasizes the need for students to put effort into asking questions for better results. He also cautions that AI, including ChatGPT, may make mistakes, and students should not blindly trust the information received, maintaining academic ethics.	BusinessFocus (2023)
Japanese Universities	Disapproval	Adopted a policy against the use of articles, program codes, and calculation results written by AI for reports, essays, and academic papers.	Chen / Yahoo! Finance (2023)
Singapore public officers	Approval	Announced the introduction of ChatGPT into the public service system, beginning widespread adoption, and started guiding education professionals on effective utilization.	Chris / TNL Mediagene (2023)
Yale and Princeton Universities	Approval	Established relevant information on their websites for faculty and students to have detailed directions and usage methods.	Huang / Vision Magazine (2023)

The IS success model

DeLone and McLean proposed the Information Systems Success Model in 1992, emphasizing the evaluation of information systems. Drawing from previous literature on Management Information Systems (MIS), they developed a structural model capable of measuring the success of information systems. The Information Systems Success Model comprises six interrelated dimensions, including System Quality, Information Quality, Use, User Satisfaction, Individual Impact, and Organizational Impact.

Pitt, Watson, and Kavan (1995), building upon the model proposed by DeLone and McLean (1992), expanded the concept of system quality beyond hardware considerations. They recognized that the quality of information systems should not only encompass hardware components but also meet users' expectations for service quality, providing them with excellent information services. In their extension of the model, they introduced the dimension of service quality, acknowledging its interaction with information quality and system quality in influencing user satisfaction.

The updated IS success model

DeLone and McLean asserted that excellent service quality significantly influences the success of information systems. Therefore, they incorporated the service quality dimension into their model. Simultaneously, they revised the original dimensions of individual impact and organizational impact to net benefits. Drawing insights from extensive literature reviews and incorporating recommendations from Pitt, Watson, and Kavan (1995), they ultimately proposed six measurement indicators: Information Quality, System Quality, Service Quality, each influencing Intention to use, Use, and User Satisfaction, consequently resulting in Net Benefits.

In the updated Information System Success Model, the usage dimension, originally defined, now incorporates the concept of usage intention. Additionally, individual performance and organizational performance have been

combined into the variable "Net Benefits" to assess the success of information systems introduced by organizations. While the traditional information system success model considers users as internal personnel within the organization, the updated model extends its applicability to information systems used by external users (Lin Hsin-Hui, Tseng Wan-Ting, 2008).

DeLone & McLean (2003) attempted to apply this model to e-commerce, posing measurement challenges (Urbach & Ahlemann, 2010). They also applied the model across various industries to measure information systems and digital learning systems, incorporating different dimensions for research and assessment.

ChatGPT provides service for users. This study thus focuses on the impact of different qualities on users' user satisfaction and the impact of user satisfaction on their continuous use intention. The five dimensions are included below.

2.4.1 Information Quality.

DeLone and McLean (2003) indicated that the quality of system outputs is a key indicator of information quality. This includes factors such as accuracy, completeness, and convenience, enabling users to continue using the information system.

2.4.2 System Quality.

DeLone and McLean (2003) proposed that the overall completeness of information itself affects the measurement of system quality. Factors such as performance and stability determine the inherent quality of the system, including effectiveness, availability, stability, necessity, and response time.

2.4.3 Service Quality

Service quality is particularly crucial in the context of information systems. An unfavorable service quality environment can lead to poor user satisfaction, affecting users' intention to continue using the system and subsequently influencing the overall net benefits (Lin Yi-Hsiu, 2016).

2.4.4 User Satisfaction

DeLone and McLean (2003) proposed that satisfaction is a crucial indicator of user perceptions. In the context of information systems, processes ranging from obtaining information to purchasing and post-service must align with user expectations to support system usage and achieve higher levels of satisfaction.

2.4.5 Intention to Continue Using ChatGPT

It refers to users' intent to continue using the information system. A positive experience with an information system will increase users' favorable intentions to continue use (Cheng, 2009; Davis, 1989).

Technological readiness

Different users have varying perspectives on new technologies, and understanding user characteristics involves considering technological readiness (TR). According to research, the acceptance and use of new technology by users are linked to their technological readiness (Parasuraman, 2000). Technological readiness is defined as "the propensity of individuals to embrace and use new technology to accomplish daily life or work-related goals." Parasuraman (2000) suggests that technology acceptance only considers the impact of external variables on user attitudes and intentions, overlooking how individual traits may influence usage intentions. Some users exhibit a positive attitude towards new technology, expressing a willingness to try and embrace it. Conversely, some users may hold a negative attitude, perceiving potential risks and feeling apprehensive about using it. For ChatGPT, a crucial condition for successful promotion is technological readiness, requiring foundational knowledge in areas such as information security, extensive and legitimate databases, and robust security measures.

Mick and Fournier's (1998) research confirm that users experience eight psychological contradictions when facing technology, including control/chaos, freedom/enslavement, novelty/cliché, competence/incompetence, efficacy/inefficacy, meeting needs/creating needs, assimilation/isolation, and fascination/non-fascination. These eight psychological contradictions align with the drivers (Enablers) and inhibitors (Inhibitors) in technological readiness.

Parasuraman (2000) collaborated with Rockbridge Associates to conduct consumer group interviews, synthesizing customer feelings towards technology's positive and negative aspects. Based on the research results, a technological readiness scale was proposed, comprising four dimensions: optimism, innovativeness, discomfort, and insecurity. Given ChatGPT's distinction from traditional information systems, this study primarily focuses on these two dimensions of optimism and discomfort and investigates their impact on the new technology ChatGPT.

2.5.1 Optimism

Users characterized by optimism believe that cutting-edge technology brings more benefits and maintain a positive attitude. They appreciate the ease and convenience of using technology, enjoy flexibility in managing their time, and see technology as a tool to enhance information search efficiency.

2.5.2 Discomfort

Users displaying discomfort prefer simplicity and are resistant to change, especially when it comes to things that do not require alteration. They often feel uneasy about handling technology, perceiving it as challenging to control. Additionally, they may feel overwhelmed by technology and wish for assistance from others.

Hypotheses

2.6.1 Relationship between System Quality and User Satisfaction with ChatGPT

DeLone and McLean (2003) posit that system quality, as a measure of the system's performance in processing information, influences user satisfaction. Kim (2011) also suggests that system quality affects user satisfaction when exploring the information system's quality provided by vendors. Given that ChatGPT relies on stable systems, higher system quality is expected to lead to higher user satisfaction.

H1: System quality of ChatGPT positively influences user satisfaction.

2.6.2 Relationship between Information Quality and User Satisfaction with ChatGPT

Considering ChatGPT as an information system, the correctness, confidentiality, convenience, and utility of system information affect user satisfaction. Kim (2011) indicates that higher information quality provided by information system vendors leads to increased trust from users. Thus, higher information quality is expected to result in higher user satisfaction.

H2: Information quality of ChatGPT positively influences user satisfaction.

2.6.3 Relationship between Service Quality and User Satisfaction with ChatGPT

ChatGPT can be utilized to establish personalized conversations with users, collect user information, and engage users in a more meaningful way. The quality of service, encompassing professionalism, proactivity, and problem resolution, will impact user satisfaction. Therefore, higher service quality is expected to lead to higher user satisfaction.

H3: Service quality of ChatGPT positively influences user satisfaction.

2.6.4 Relationship between Optimism and Continued Intention to Use ChatGPT

Tsikriktsis (2004) suggests that users with a positive attitude towards technology, believing that cutting-edge technology brings more benefits, will have increased intentions to use. For ChatGPT, higher individual optimism is expected to lead to a higher continued intention to use.

H4: Optimism positively influences the continued intention to use ChatGPT.

2.6.5 Relationship between Discomfort and Continued Intention to Use ChatGPT

Tsikriktsis (2004) indicates that users preferring simplicity, finding technology challenging to control, or feeling overwhelmed by technology tend to seek assistance. For ChatGPT, lower user discomfort is expected to result in a higher continued intention to use.

H5: Discomfort negatively influences the continued intention to use ChatGPT.

2.6.6 Relationship between Satisfaction and Continued Intention to Use Chat GPT

DeLone and McLean (1992) propose a mutual influence between user satisfaction and usage intention in information systems. DeLone and McLean (2003) assert that user satisfaction impacts usage intention. Given that ChatGPT is a novel information system, this study infers that the continued intention to use ChatGPT will be influenced by user satisfaction with ChatGPT.

H6: Satisfaction positively influences the continued intention to use ChatGPT.

This study adopts the Information System Success Model by DeLone & McLean (2003) and the dimension of Technological Readiness to investigate the impact of users' continuous intention to use ChatGPT. The independent variables include System Quality, Information Quality, Service Quality, Optimism, and Discomfort. Satisfaction serves as the mediating variable, while the dependent variable is the intention to continue using. The research framework is depicted in Figure 1.

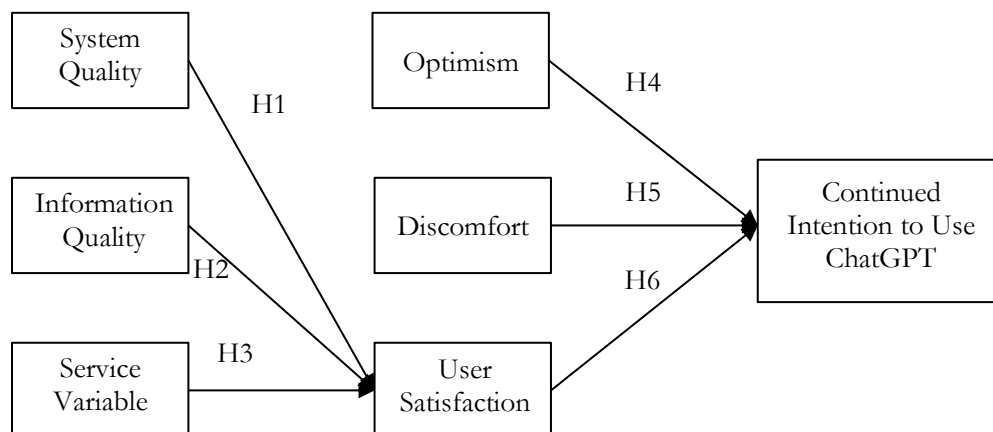


Figure 1. The conceptual framework of the study

3. Research methodology

This study employs a survey method as the data collection tool, based on the technological readiness dimension and the information system success model, referencing scales previously used by experts and scholars.

Variable definitions

The research framework aims to explore users' intention to continue using ChatGPT, considering technological readiness (TR). The variables include "Optimism" and "Discomfort" from technological readiness, and "System Quality," "Information Quality," "Service Quality" from the information system success model. Additionally, "User Satisfaction" is included to investigate its impact on the continued intention to use ChatGPT.

Scales

Based on the defined variables, the sources are divided into three parts, including basic information, technological readiness scales, and the information system success model. The study utilizes a Likert five-point scale, categorized as "Strongly Disagree," "Disagree," "Neutral," "Agree," and "Strongly Agree." A higher score indicates greater agreement with the respective measurement item concerning users' intentions to continue using ChatGPT.

Questionnaire design

The survey is distributed to ChatGPT users, divided into four major sections: "Personal Basic Information," "Information System Success Model Scale," "Technological Readiness Scale," and "Continued Usage Intention." The Google Forms online questionnaire system is employed for distribution and collection. Participants are required to select the answer that best corresponds to their actual experiences and feelings. Operational definitions for each variable are provided in Table 2.

Table 2 operational definitions of constructs

DIMENSION	OPERATIONA DEFINITIONS IN THIS STUDY
System Quality	Evaluation of the ease of operation, stability, completeness of system data provided to users, and the efficiency and responsiveness of data processing in using ChatGPT (DeLone and McLean, 2003).
Information Quality	Evaluation of the accuracy and strong integration ability of information, convenience of use, and the comprehensibility of displayed information when using ChatGPT (DeLone and McLean, 2003).
Service Quality	Assessment of whether ChatGPT meets users' expected service, attitude, and efficiency in problem-solving (DeLone and McLean, 2003).
Satisfaction	Measurement of users' satisfaction with ChatGPT, reflecting the degree of satisfaction based on their perceptions (DeLone and McLean, 2003).
Optimism	Positive attitude towards ChatGPT, believing it can increase flexibility, convenience, and efficiency in users' daily lives while boosting their confidence (Parasuraman, 2000).
Discomfort	Self-perceived difficulty in operating ChatGPT, generating concerns, and feeling overwhelmed by its complex functions (Parasuraman, 2000).
Continued Usage Intention	The degree to which users show an intention to continue using ChatGPT in the future.

Data collection

This study defined the target subjects as users who are currently using ChatGPT or have used ChatGPT in the past. The survey was conducted using the Google Forms online questionnaire system. The implementation period was from October 12, 2023, to October 20, 2023, for the formal distribution and retrieval of the questionnaire. The questionnaire was distributed to 138 respondents, excluding 29 responses from individuals who had never used ChatGPT, considered as invalid. A total of 109 valid responses were collected, and SmartPLS was used for measurement model analysis and structural model analysis. The effective response rate was 78.99%, with 28 males (25.69%), 75 females (68.81%), and 6 respondents (5.50%) choosing not to disclose their gender. The age distribution showed that 96 respondents (88.07%) were 18 years old or above. Regarding education, 70 respondents (64.22%) had completed university.

After collecting the questionnaires, statistical analysis was performed using the SmartPLS 4 software for Microsoft Windows, based on the research questions and hypotheses. The analysis included descriptive statistics, reliability analysis, and validity analysis.

4. Data Analysis

In this study, Partial Least Squares (PLS) method was employed for data analysis. SmartPLS software was used to examine the reliability and validity of the collected questionnaires (Ringle et al., 2024).

Reliability and validity analysis

For the constructs "ChatGPT System Quality," "ChatGPT Information Quality," "ChatGPT Service Quality," "ChatGPT User Satisfaction," and "ChatGPT Continued Usage Intention," the study conducted reliability and validity analysis to test their internal consistency. Hair et al. (2010) suggested that factor loading greater than 0.5 indicates substantial convergent validity. If the factor loading is below this threshold, the item is considered not representative and should be deleted. In this study, most factor loadings were above 0.5 for each variable in the same scale, except for one item in Information Quality and two items in Discomfort. However, these items were retained as their performance in other aspects was acceptable.

Hair, Anderson, Tatham, and Black (1998) argued that reliability values should be at least higher than 0.7, with values between 0.7 and 0.8 considered high reliability and above 0.8 as optimal reliability. If the value is below 0.35, the item should be deleted. Additionally, Hair et al. (2010) recommended that the combination of Composite Reliability (CR) and Cronbach's α should exceed 0.7. After statistical analysis, the questionnaire variables in this study demonstrated Cronbach's α and CR values ranging from 0.7 to 0.9, indicating high reliability. The summary of reliability and validity analysis for each construct is presented in Table 3.

Table 3 reliability and validity analysis

CONSTRUCTS	ITEMS	FACTOR LOADING	CRONBACH'S ALPHA	COMPOSITE RELIABILITY (CR)	AVERAGE VARIANCE EXTRACTION
System Quality (SQ)	SQ1	0.865	0.847	0.887	0.625
	SQ2	0.849			
	SQ3	0.721			
	SQ4	0.888			
	SQ5	0.593			
Information Quality (IQ)	IQ1	0.745	0.772	0.814	0.523
	IQ2	0.674			
	IQ3	0.492			
	IQ4	0.826			
	IQ5	0.827			
Service Quality (SVQ)	SVQ1	0.817	0.801	0.817	0.621
	SVQ2	0.755			
	SVQ3	0.738			
	SVQ4	0.837			
User Satisfaction (US)	US1	0.798	0.901	0.905	0.717
	US2	0.887			
	US3	0.855			
	US4	0.862			
	US5	0.830			
Optimism (OPT)	OPT1	0.798	0.889	0.912	0.692
	OPT2	0.874			

	OPT3	0.838			
	OPT4	0.882			
	OPT5	0.761			
Discomfort (DIS)	DIS1	0.835	0.711	0.802	0.461
	DIS2	0.849			
	DIS3	0.709			
	DIS4	0.391			
	DIS5	0.484			
Continuous Intention to Use ChatGPT (CIUC)	CIUC1	0.886	0.915	0.925	0.748
	CIUC2	0.912			
	CIUC3	0.794			
	CIUC4	0.860			
	CIUC5	0.867			

About discriminant validity, referring to Fornell and Larcker (1981), it is recommended that the square root of the average variance extracted (AVE) for each construct should be greater than the correlation coefficients with other constructs. In the cross-loading matrix, each variable should load significantly higher on its own construct compared to other constructs. In this study, the values in the cross-loading matrix for each construct were higher than the loadings on other constructs, indicating good discriminant validity. Additionally, the square root of the average variance extracted (AVE) for each construct was higher than the correlation coefficients with other constructs, as shown in Table 4.

Table 4 correlations of constructs and square-roots of AVEs on the diagonal

Constructs	CIUC	IQ	OP	SQ	SVQ	DIS	US
CIUC	0.865						
IQ	0.477	0.791					
OP	0.657	0.648	0.832				
SQ	0.625	0.571	0.700	0.723			
SVQ	0.474	0.559	0.622	0.650	0.788		
DIS	-0.364	-0.175	-0.296	-0.177	-0.227	0.679	
US	0.663	0.617	0.801	0.772	0.747	-0.288	0.847

Model analysis and testing

With adequate measurement properties, SmartPLS analysis software was used to estimate the path coefficients (β values) and model explanatory power (R^2 values) for the structural model. This was done to examine the relationships between various research variables and test the hypotheses proposed in the study. Path coefficients represent the strength and direction of relationships between constructs in the model, while the model's predictive ability is assessed using the R^2 value, indicating the percentage of variance explained by the external variables on the internal variable.

Lee (2023) mentioned in the study that bootstrapping, a resampling method, was employed using SmartPLS. After 5000 iterations, path coefficients and t-values were computed, and p-values were obtained through transformation to examine whether each structural path reached significance levels (Hair et al., 2010). In this study, H1 (p-value = 0.058) and H5 (p-value = 0.063) were both greater than 0.05, indicating non-significance in the results. Thus, the testing results did not support these hypotheses. On the other hand, H2 (p-value = 0.000), H3 (p-value = 0.000), H4 (p-value = 0.008), and H6 (p-value = 0.004) were all less than 0.01, suggesting significance and supporting the hypotheses. The summarized results are depicted in Figure 1.

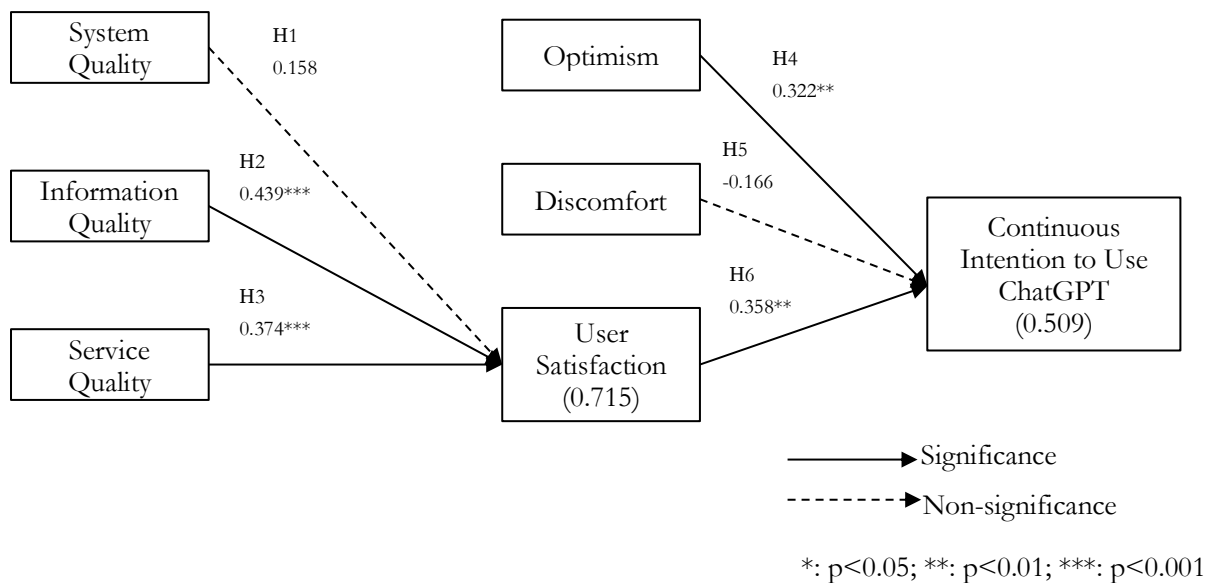


Figure 2. The results of the study

4. Conclusion

This study focuses on users who have utilized ChatGPT, exploring the relationships between ChatGPT's information quality, system quality, service quality, user satisfaction. Additionally, it examines the connections between user satisfaction, technological readiness facets, and continuous intention to use ChatGPT. Drawing from literature, theoretical discussions, and questionnaire results, comprehensive conclusions are presented. Practical recommendations for ChatGPT are also proposed for the information industry and other entities engaged in research on generative AI.

The results reveal that information quality and service quality have a highly significant positive correlation with user satisfaction. This implies that higher information and service quality in ChatGPT lead to greater user satisfaction. Furthermore, optimism and user satisfaction significantly influence users' continuous intention to use ChatGPT. This suggests that users' optimism regarding ChatGPT influences their intention to continue usage, and higher user satisfaction enhances the intention to continue using ChatGPT.

From literature, the study finds that ChatGPT has both positive and negative impacts on the education sector. On one hand, it can enhance learning efficiency, assist in completing repetitive tasks, provide personalized teaching content, and help teachers improve teaching quality. On the other hand, excessive reliance on ChatGPT may lead to a decrease in students' proactive learning awareness, a lack of deep thinking, and even incidents of plagiarism. Therefore, the education sector needs to judiciously guide student usage of AI, balancing its utility while focusing on fostering independent thinking skills.

While ChatGPT brings convenience to human life, it also introduces uncertainties to society. The study recommends that tech companies responsibly guide AI development, various sectors establish appropriate regulations to harness positive effects, and governments promote international cooperation to form a consensus on AI governance. Based on these recommendations, the study believes that the potential value of ChatGPT can be fully explored.

5. Limitations and Future Suggestions

This study, given its research objectives, employed online surveys to collect data. Despite efforts through various channels for distribution, the final collection yielded only 109 valid responses, which might be considered limited in sample size. Further studies that gather larger sample sizes were suggested.

In addition, this study focuses on the ChatGPT released by OpenAI on November 30, 2022, and acknowledges ongoing improvements in the system. As the technology matures and the application market becomes more saturated, user intent to use may increase. Future research can consider additional dimensions, such as user preferences for specific features and concerns about the security of the advancing technology. It is suggested that future researchers, looking to delve deeper into ChatGPT, extend sampling time and broaden geographical scope to enhance the rigor of research results.

References

1. Bloomberg (2023). "Paris Political College Prevents Plagiarism, Ban on Students' Using ChatGPT for Reports," Liberty Times, November 2023. Retrived from <https://news.ltn.com.tw/news/world/breakingnews/4195956>, Accessed on December 8, 2023 (in Chinese)
2. BusinessFocus(2023), "No Afraid of Cheating, Ivy League Universities Encourage Students to Use ChatGPT, IB Students are allowed to Write Thesis with AI", BusinessFocus, February 2023. Retrieved from <https://reurl.cc/ed2e37>, Accessed on December 8, 2023 (in Chinese)
3. Chang, S.-L., & Chen, P.-B. (2023). "Hong Kong University Bans the use of ChatGPT, Viewed as Plagiarism without Authorization of Lecturers," Central News Agency, February 2023. Retrived from <https://www.cna.com.tw/news/acn/202302190038.aspx>, Accessed on November 23, 2023 (in Chinese)
4. Chen G.-R. (2023). Artificial Intelligence becomes a writing tool, New Yorl Public Schools Ban on use of ChatGPT, TechNews, January 2023. Retrieved from <https://technews.tw/2023/01/06/nyc-education-department-blocks-chatgpt-on-school-devices-and-networks/>, Accessed on November 23, 2023 (in Chinese)
5. Chen, Y.-L. (2023). "The Japanese Media Survey of How Nineteen Japanese Universities View ChatGPT, Governmental Officers also Think after Trial: Lowering Burdening." Yahoo! Finance April, 2023. Retrieved from <https://reurl.cc/1GVdx8>, Accessed on November 23, 2023. (in Chinese)
6. Cheng, C.-W. (2009). "Exploring the library information system of National Pin-Tung University based on the IS success model. Journal of National Pin-Tung Education University- Science and engineering, Vol. 29, pp. 57 – 78. (in Chinese)
7. Cheng, S. and Wu, E. (2023). "What's ChatGPT? How to Use with Smartphone App? Ten Basic Skills: Registration, Chinese Order.....Learning Right Away," ELLE Taiwan, May 2023. Retrieved from <https://www.elle.com/tw/life/tech/g43628920/chatgpt-intro/>, Accessed on December 8, 2023 (in Chinese)
8. Chris (2023). "Singapore Government: Ready to Introduce ChatGPT, Help Officers Write Reports," Chris / TNL Mediagene, February 2023. Retrieved from <https://reurl.cc/1GVd48>, Accessed on December 8, 2023 (in Chinese)
9. Davis, F. (1989). "Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology", MIS Quarterly, Vol. 13(3), pp. 315-340.
10. DeLone,W.H. & McLean,E.R.(1992). "Information Systems Success: The Quest for the Development Variable,"Information Systems Research,Vol.3(1), pp. 60-95.
11. DeLone,W.H. & McLean,E.R.(2003). "The DeLone,W.H. and McLean Modle for Information Systems Success: A Ten-Year Update", Journal of Management Information Systems,Vol 19(4),pp. 5-30.
12. Lee, C.-W. (2023). Exploring Consumers' Continued Usage Intention of Digital Accounts Based on Technology Readiness and Information System Successful Model. Unpublished Thesis of Department of Information Management of Vanung University. (in Chinese)
13. Li, C.-Y. (2023). "Viewpoint submission: The Advantages and Disadvantages of How teachers respond to ChatGPT on teaching occasions," The Storm Media, May 1, 2023. Retrieved from <https://www.storm.mg/article/4781758?page=1>, Accessed on December 8, 2023 (in Chinese)
14. Lin, H.-H., & Tseng, W.-T. (2008). "Constructing a Model of Online Tourism Systems Success from Customer Perspective: An Integration of the Rational-based Theory and the Flow Theory," Journal of Electronic Commerce, [https://doi.org/10.6188/JEB.2008.10\(3\).08](https://doi.org/10.6188/JEB.2008.10(3).08) (in Chinese)
15. Lin, Y.-H. (2016). Application of Information System Success Model to Discuss the Influence Factors of Consumer Behavior Intention: A Case of Travel Agency Online Platform, Unpublished Thesis of

- Department of Leisure Services Management of ChaoYang University of Technology. (in Chinese)
16. Huang, R.-C. (2023). "Making Learning Process Files Using ChatGPT? The Responses from Different Universities." *Vision Magazine*, February 2023. Retrived from <https://www.gym.com.tw/article/100042>, Accessed on November 23, 2023 (in Chinese)
 17. OpenAI (2022) OpenAI Blog, OpenAI, November 2022. Retrieved from <https://openai.com/blog/chatgpt>, Accessed on February 8, 2023.
 18. Parasuraman,A.(2000).“Technology Readiness Index (TRI): A Multiple-item Scale to Measure Readiness to Embrace New Technologies”, *Journal of Service Research*,Vol. 2(4),pp. 305-320.
 19. Piper, K.(2022).“ChatGPT has given everyone a glimpse at AI's astounding progress.”*Vox*. Retrieved from: <https://www.vox.com/future-perfect/2022/12/15/23509014/chatgpt-artificial-intelligence-openai-language-models-ai-risk-google>.
 20. Pitt, L. F., Watson, R. T. and Kavan, C. B. (1995). "Service Quality: A Measure of Information Systems Effectiveness." *MIS Quarterly*, 19(2), pp. 173-187
 21. Ringle, C.M., Wende, S., and Becker, J.-M. 2024. *SmartPLS 4*. Monheim am Rhein: SmartPLS GmbH, <https://www.smartpls.com>.
 22. Rosenblatt, K. (2023). New York City public schools remove ChatGPT ban, *NBC News*, May 19, 2023. <https://www.nbcnews.com/tech/chatgpt-ban-dropped-new-york-city-public-schools-rcna85089>, accessed on January 30, 2024.
 23. Tsikriktsis,N.(2004).“A Technology Readiness-based Taxonomy of Customers: A Replication and Extension”, *Journal of Service Research*, Vol.7(1), pp. 40-55.
 24. Urbach,N. & Ahlemann, F.(2010).“Structural Equation Modeling in Information Systems Research Using Partial Least Squares”, *Journal of Information Technology Theory and Application*, Vol.11, pp. 10-40.