FACTORS AFFECTING BEHAVIORAL INTENTION OF TRADITIONAL CHINESE MEDICINE UNDERGRADUATES FOR BLENDED EDUCATION

Han Yuting

Sichuan College of Traditional Chinese Medicine, China.

Corresponding author e-mail: 497357241@qq.com

Abstract

This quantitative investigation examined the behavioral intention of Chinese Medicine Undergraduates in Chengdu, China, toward blended education using the Rain Classroom Teaching System, as well as the key factors that significantly influenced it. The researcher assessed Perceived Ease of Use, Perceived Usefulness, System Quality, Information Quality, Attitude, and Satisfaction to see if the effects of each of these variables influenced target TCM undergraduates' behavioral intention. The researcher administered questionnaires to TCM undergraduates and employed statistically exploratory approaches to determine 493 valid information. In this assessment, the judgmental and quota sampling strategies were utilized. Confirmatory Factor Analysis and the Structural Equation Model were implemented to establish the causal association connecting the aspects under assessment. This statistical examination discovered that every hypothesis was supported, with system quality providing the strongest direct influence on satisfaction. Each hypothesis has been verified to accomplish the research objectives. As an interpretation, educational division administrators at target institutions are encouraged to examine the significant improvements to the current blended education implementation strategy to improve TCM undergraduates' learning behavioral intentions.

Keywords: Blended Education, Rain-Classroom Teaching System, Behavioral Intention

Introduction

Blended education integrates traditional face-to-face instruction with online learning, combining their advantages to enhance teaching outcomes and the learning experience (Zhao & Xing, 2024). This method uses online platforms to provide diverse learning resources—such as videos, quizzes, and forums—enabling students to prepare before class. Classroom time can then focus on deeper interactions and personalized support, improving teaching quality (Xu et al., 2024).

This approach supports flexible, ubiquitous learning, meeting students' diverse needs while promoting autonomy and interaction. By combining online and offline resources, students access customized learning paths, enhancing efficiency and equity in education. Advanced technologies such as big data and AI further personalize the experience, thereby optimizing learning outcomes.

For example, in English education, blended methods merge self-directed online learning with in-class discussions, fostering teamwork and practical skills. Systems such as the Rain-Classroom Teaching System (RCTS) use real-time interactivity and data-driven insights to refine teaching strategies, benefiting instructors and students (Sun, 2019).

Behavioral intention plays a crucial role in evaluating the acceptance of blended education technologies, as evidenced by studies on digital learning platforms. An empirical study investigates factors influencing this intention among TCM undergraduates in Chengdu, China, using the RCTS model (Songkram et al., 2023; Venkatesh et al., 2003).

Literature Review

1. Perceived Ease of Use

Perceived ease of use is the extent to which an activity is perceived as effortless to operate, suggesting that an individual considers the mechanism straightforward to understand with little cognitive and physical effort (Davis, 1989). Recent investigations have discovered that confidence is critical to the PEOU of information technology systems, highlighting its fundamental function in promoting system acceptability (Venkatesh & Davis, 2000). PEOU corresponds to an individual's thoughts regarding their probability of accomplishment when employing the functionality supplied by an organization. According to scientific investigations, the quality of information provided significantly impacts users' judgments of PEOU and PU (Ahn et al., 2007). Additionally, Sagar and Van der Zwaan (2006) underlined that various characteristics of SYQ, such as reliability, trustworthiness, encouragement, selecting approachable surroundings, adaptation, and login straightforwardness, significantly impact PEOU.

H1: Perceived ease of use has a significant effect on perceived usefulness.

H2: Perceived ease of use has a significant effect on attitude.

2. Perceived Usefulness

According to Davis (1989) and Venkatesh and Davis (2000), PU is the consequence of instructional applications on users' understanding of the consequences of achievements. In the distance education framework, PU encompasses the degree to which learners anticipate using a virtual educational environment would improve their educational accomplishment (Lee, 2009). Sánchez-Cruz et al. (2013) examined the PU of distance learning infrastructure, which measures how much students believe using these platforms would strengthen their professional achievements. Personal PU corresponds to a student's enthusiasm for improved educational outcomes and their application of educational technology (Robey & Farrow, 1982). Navarro et al. (2004) maintain that PU has the capacity utilization to strengthen the students' satisfaction and attitude substantially.

H3: Perceived usefulness has a significant effect on attitude.

3. Attitude

According to Golnaz et al. (2010), attitude was an essential predictor of behavior intention. It was an individual's steady psychological propensity toward a certain item Ajzen (1991). The ATT conveyed a sentiment regarding the item, including its enjoying or disliking psychological reaction. Therefore, it was considerably more straightforward for individuals to comprehend behavior that they acknowledged (Armitage & Conner, 2001). ATT is a significant determinant of anyone's willingness to embrace educational technological advances (King & He, 2006). ATT significantly mediates PU, PEOU, and BEI (Golnaz et al., 2010). According to previous investigations, instructors' attitudes toward utilizing contemporary technology might represent the most significant obstacle to their ability to incorporate it (Beri & Sharma, 2019).

H4: Attitude has a significant effect on behavioral intention.

4. System Quality

According to DeLone and McLean (1992), system quality is the degree of professionalism demonstrated by the built-in capabilities of information and innovation techniques. The characteristics of simplicity, effectiveness, precision, reliability, flexibility, and reactivity are all examined in the context of information framework activities by Bailey and Pearson (1983). Examination of the innovation technique for analyzing its entirety is associated with SYQ (Chen & Tsai, 2007). SYQ is the rate at which a platform's credentials enable teachers to perform their duties successfully and satisfactorily while fostering understanding and knowledge (Rughoobur-Seetah & Zuberia, 2021). In internet-based instruction, SYQ indications cover various topics, including system operation (Choet & Xiangkang, 2009).

H5: System quality has a significant effect on satisfaction.

5. Information Quality

According to DeLone and McLean (1992), the conception of information quality encompasses the capability of a system to present a significant extent of educational resources, encourage user significance, and provide reliable online educational knowledge.

Students' perception of current, reliable, exhaustive, and promptly available knowledge is characterized by the INQ (Rughoobur-Seetah & Zuberia, 2021). These considerations include promptness, precision, effectiveness, generality, significance, truthfulness, and the breadth of the information. According to research by Seddon (1997), the educational value of the instructional material is one of the primary indicators used to evaluate the excellence of information in an online learning environment. According to DeLone and McLean (2003), studies regarding INQ frequently encompass technique or generalization assessed effectiveness as the indicator.

H6: Information quality has a significant effect on satisfaction.

6. Satisfaction

Satisfaction is an independent viewpoint that depends on various components, including service quality, commodity-based significance, and circumstances. SAT is defined as how individuals recognize and comprehend a benefit or assistance in general (Chang, 2012). Numerous studies have demonstrated that the standard of knowledge significantly affects users' SAT with an application, which in turn influences the frequency with which they use it (Nagy, 2018). According to DeLone and McLean (2003), SAT is the extent of individual contentment with the system's functionality. One practical method for measuring student SAT is to evaluate the connection between service quality and learning SAT (Pitt et al., 1995). Navarro et al. (2004) believe that using SAT could significantly increase users' awareness of utility; knowledge and framework excellence evaluations are frequently used to gauge learning SAT.

H7: Satisfaction has a significant effect on behavioral intention.

7. Behavioral Intention

The psychological framework that highlights determined action to explain individuals' choices in acknowledging a specific technique is a manifestation of behavioral intention (Chauhan, 2015). In the opinion of Asadi et al. (2016), BEI can be characterized as a person's psychological appearance regarding their decision to accept or reject a specific system. How someone views the possibility of using behavioral purposes for employing an online education system was the explanation behind selecting and establishing an e-learning system. It could be influenced by administrative, scientific, and interpersonal variables (Salloum & Shaalan, 2019). BEI is a significant indicator in predicting how well a particular system or technology will perform when utilized (Bardakcı, 2019). According to previous investigations, BEI immediately affects the actual utilization of technological structures, especially e-learning systems, and the two structures have an important beneficial connection (Salloum & Shaalan, 2019).

Research Framework

The present quantitative research is designed to investigate the primary factors influencing undergraduates' behavioral intention toward blended education via RCTS from the three target medical colleges in the Sichuan province of China. This was carried out by

considering the benefits of seven latent variables from the conceptual framework, which included three independent variables—PEOU, SYQ, and INQ; three mediator variables: PU, ATT, and SAT—and one dependent variable, BEI. To determine the extent of the authority, this study additionally examined the causal connections between each latent variable. According to the structure of the conceptual framework, the seven hypotheses were established:
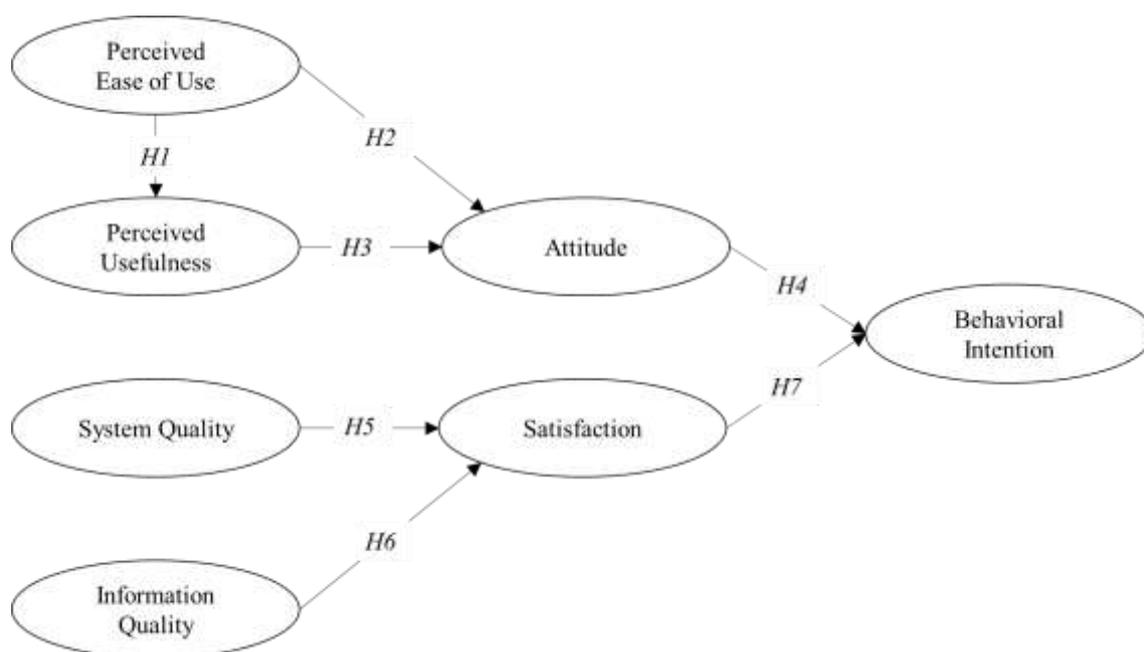

Figure 1 Conceptual Framework

The hypotheses of research variables based on the conceptual framework are.
  H1: Perceived ease of use has a significant effect on perceived usefulness.
  H2: Perceived ease of use has a significant effect on attitude.
  H3: Perceived usefulness has a significant effect on attitude.
  H4: Attitude has a significant effect on behavioral intention.
  H5: System quality has a significant effect on satisfaction.
  H6: Information quality has a significant effect on satisfaction.
  H7: Satisfaction has a significant effect on behavioral intention.

Research Methodology

The TCM undergraduates at three target medical colleges in Sichuan, China, who utilized the advantages of blended education, received a quantitative in-person survey by the researcher. For this academic investigation, the researcher employed a multistage sampling approach that included judgmental and quota sampling by RCTS. To identify the crucial elements that significantly influenced those answering behavioral intention for blended

education, information comprehension was merged and examined. The five-level Likert scale is utilized to assess every observed characteristic scientifically.

1. Population and Sample Size

Following the effective completion of the investigation instrument's reliability and validity evaluations, the scale items were provided to 500 TCM undergraduate students from the target medical colleges. The researcher utilized statistical approaches to assess the data. Additionally, constructed validity was investigated employing confirmatory factor analysis (CFA), and the hypotheses and the direct, indirect, and total influence of the relationships among the interconnected variables were evaluated using the structural equation model (SEM).

2. Sampling Techniques

Since it was essential to assess the correct evaluation by the investigation's instrument contractors for the present investigation, one professor and two associate professors were invited as experts to carry out the item-objective congruence (IOC) for content validity. After the content validity evaluation was completed, the overall number of students for the pilot evaluation was 30, and the internal consistency reliability of the scale items was evaluated using Cronbach's Alpha evaluation.

Results and Discussion

1. Demographic Information

Following gathering data, 493 valid information were obtained after the invalid data was narrowed.

Table 1 Demographic Profile

Demographic and General Data (N=493)		Frequency	Percentage
Gender	Male	219	44.42%
	Female	274	55.58%
College Belong	SCTCM	153	31.03%
	SVCHR	166	33.37%
	SNVC	174	35.60%
Grade	Freshman	125	25.34%
	Sophomore	189	38.34%
	Junior	179	36.32%

Table 1 presents the summary of the demographic information for all 493 participants. 55.58% of participants were female, and 44.42% were male. According to the college data, 31.03% of the samples came from SCTCM, 33.37% from SVCHR, and 35.60% from SNVC. Furthermore, 25.34% of the samples were first-year students, 38.34% were sophomores, and

36.32% were juniors across the grade categories.

2. Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is a statistical approach used to examine the degree of fitness between a predefined factor model and actual data, thereby verifying whether the structure of a theoretical hypothesis holds. This method is widely used in research in fields such as pedagogy to help researchers confirm the validity of their theoretical models. The Goodness of Fit (GOF) is the initial evaluation criterion for CFA.

Table 2 Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Latent Variables	Source of Questionnaire	No. of Items	Cronbach's Alpha	Factors Loading	CR	AVE
Perceived Ease of Use (PEOU)	Davis (1989)	3	0.785	0.710-0.832	0.848	0.652
Perceived Usefulness (PU)	Davis (1989)	3	0.895	0.755-0.810	0.812	0.591
System Quality (SYQ)	DeLone and McLean (1992)	4	0.805	0.731-0.822	0.882	0.600
Information Quality (INQ)	DeLone and McLean (1992)	3	0.855	0.656-0.825	0.861	0.509
Attitude (ATT)	Golnaz et al. (2010)	3	0.902	0.770-0.891	0.855	0.665
Satisfaction (SAT)	Chang (2012)	4	0.709	0.674-0.781	0.787	0.553
Behavioral Intention (BEI)	Asadi et al. (2016)	4	0.727	0.673-0.765	0.758	0.512

Source: Created by the author.

The vital evaluation indicators for the CFA are convergent validity and discriminant validity. The estimated points for convergent validity are Factor Loading (FL), Composited Reliability (CR), and Average Variance Extracted (AVE). In this empirical research, all the FL values are above 0.5, all the CRs are above 0.7, and all the AVEs exceed 0.5, indicating that convergent validity was supported. The detailed information for convergent validity is summarized in Table 2.

Table 3 Goodness of Fit for Measurement Model

Index	Acceptable Values	Statistical Values After Adjustment
CMIN/df	<3.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	2.080
GFI	≥ 0.90 (Sica & Ghisi, 2007)	0.919
AGFI	≥0.80 (Sica & Ghisi, 2007)	0.897
RMSEA	< 0.05 (Hu & Bentler, 1999)	0.047
CFI	≥ 0.90 (Bentler, 1990)	0.952
NFI	≥0.90 (Wu & Wang, 2006)	0.912
TLI	≥ 0.90 (Hair et al., 2006)	0.943
Model summary		**Acceptable Model Fit**

Note: CMIN/DF = the ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, RMSEA = root mean square error of approximation, CFI = comparative fit index, NFI = normalized fit index and TLI = Tucker Lewis index.

As indicated by Table 3, all the pertinent standards for the CFA and the GOF indicators fulfilled the specifications. Therefore, every goodness of fit measurement employed in the CFA assessment was acceptable.

Table 4 Discriminant Validity

	PEOU	PU	SYQ	INQ	ATT	SAT	BI
PEOU	**0.807**						
PU	0.140	**0.769**					
SYQ	0.127	0.084	**0.775**				
INQ	0.082	0.050	0.170	**0.713**			
ATT	0.451	0.165	0.079	0.133	**0.815**		
SAT	0.008	0.038	0.508	0.180	0.098	**0.744**	
BI	0.226	0.130	0.138	0.039	0.449	0.170	**0.716**

Note: The diagonally listed value is the AVE square roots of the variables.

For the acceptable criteria of discriminant validity, the coefficient of association between any paired latent variables should be below 0.8 (Schmitt & Stults, 1986). The highest value of this coefficient of association is 0.508. Therefore, the discriminant validity of the CFA was supported, as shown in Table 4.

3. Structural Equation Model (SEM)

The structural Equation Model (SEM) is a multivariate quantitative analysis methodology used to investigate the connection between complex constructs, especially for educational and academic research (Kaplan, 2009). In the structural model, SEM could evaluate the causal relationship between latent variables through path analysis, which can reveal the influence of exogenous latent variables on endogenous latent variables and the mutual relationship between endogenous latent variables (Byrne, 2010).

Table 5: Goodness of Fit for Measurement and Structural Model

Index	Acceptable Values	Statistical Values After Adjustment
CMIN/df	<3.00 (Al-Mamary & Shamsuddin, 2015; Awang, 2012)	2.137
GFI	≥ 0.90 (Sica & Ghisi, 2007)	0.913
AGFI	≥0.80 (Sica & Ghisi, 2007)	0.894
RMSEA	< 0.05 (Hu & Bentler, 1999)	0.048
CFI	≥ 0.90 (Bentler, 1990)	0.947
NFI	≥0.90 (Wu & Wang, 2006)	0.905
TLI	≥ 0.90 (Hair et al., 2006)	0.940
Model summary		**Acceptable Model Fit**

Note: CMIN/DF = the ratio of the chi-square value to degree of freedom, GFI = goodness-of-fit index, AGFI = adjusted goodness-of-fit index, RMSEA = root mean square error of approximation, CFI = comparative fit index, NFI = normalized fit index and TLI = Tucker Lewis index.

Identical to the CFA, SEM also requires the GOF evaluation first. The evaluation standard of SEM in this research is consistent with the corresponding requirements of the CFA. All the SEM's GOF has been determined based on the comprehensive data provided in Table 5.

4. **Hypothesis Testing Result**

Table 6 summarizes the hypotheses and results, showing that all were supported. ATT significantly influenced BEI, with a standardized path coefficient (β) of 0.588 and a T-value of 10.258***, the strongest influence. PEOU significantly affected ATT (β = 0.538, T-value = 9.360***), the second strongest influence. INQ also significantly impacted SAT (β = 0.532, T-value = 9.320***), ranking third. SAT influenced BEI (β = 0.163, T-value = 3.124**), the fourth strongest. PEOU impacted PU (β = 0.144, T-value = 2.675**), ranking fifth. SYQ influenced SAT (β = 0.121, T-value = 2.508*), the sixth strongest. Finally, PU influenced ATT (β = 0.106, T-value = 2.218*), the weakest influence.

Table 6: Hypothesis Results of the Structural Equation Model

Hypothesis	(β)	t-value	Result
H1: PEOU➔PU	0.144	2.675 **	Supported
H2: PEOU➔ATT	0.538	9.360 ***	Supported
H3: PU➔ATT	0.106	2.218 *	Supported
H4: ATT➔BI	0.588	10.285 ***	Supported
H5: SYQ➔SAT	0.121	2.508 *	Supported
H6: INQ➔SAT	0.532	9.320 ***	Supported
H7: SAT➔BEI	0.163	3.124 **	Supported

Note: *** p<0.001

Source: Created by the authorThe structural model identified significant relationships for all hypotheses. H1 confirmed that PEOU positively impacts PU (β = 0.144), aligning with findings on ease of use influencing perceived usefulness (Cheng, 2014; Davis, 1989). H2 showed PEOU significantly affects ATT (β = 0.538), emphasizing its role in user attitudes (Kulviwat et al., 2007). H3 revealed PU impacts ATT (β = 0.106), consistent with the TAM framework (Childers et al., 2001). H4 highlighted ATT's strong effect on BEI (β = 0.588), supporting the link between attitude and behavioral intention (Estriegana et al., 2018). H5 demonstrated SYQ's influence on SAT (β = 0.121), reflecting ISSM insights (Poelmans & Wessa, 2013). H6 confirmed INQ's effect on SAT (β = 0.532), while H7 established SAT's impact on BEI (β = 0.163), consistent with research on satisfaction shaping intentions in blended learning (Mouakket & Bettayeb, 2015).

Conclusions, Recommendations, Limitations and Future Research

      1. **Conclusions**

         This study examined the influence of PEOU, PU, ATT, SYQ, INQ, and SAT on BEI among TCM undergraduates in Sichuan, China. CFA validated the framework using data from 493 students, and SEM confirmed significant relationships. ATT had the strongest impact on BEI, with PEOU strongly influencing ATT. All hypotheses were supported.

      2. **Recommendations**

         This study provides recommendations for improving blended education. To enhance PEOU, instructors should integrate quality resources like videos and animations and train students to use online platforms. For PU, combining online and offline resources and building learning communities boost effectiveness and motivation. Aligning resources and fostering interactive activities enhances ATT while ensuring system stability and gathering feedback, which improves SYQ. Accurate, updated multimedia content supports INQ, and localized resources with strong interactions increase SAT. These measures collectively

enhance teaching and learning outcomes for TCM undergraduates.

3. Limitations and Future Research

The current investigation restricted itself to TCM major undergraduates across three colleges and universities in the Sichuan region of China; however, undoubtedly, many undergraduates in medical college were not involved in this quantitative investigation. Additionally, alternative technological adoption frameworks were not emphasized, and only seven variables that correspond to the ISSM and TAM models have been discovered in the conceptual framework.

The next evaluation might be divided into two parts: broadening the scope of the research to cover more majors in medical colleges. The extra variable from various techniques, such as acceptability hypotheses such as ECM, TRA, and UTAUT, could be analyzed as part of the research framework development.

References

Ahn, Y. Y., Han, S., Kwak, H., Moon, S., & Jeong, H. (2007). Analysis of topological characteristics of huge online social networking services. In *Proceedings of the 16th International Conference on World Wide Web* (pp. 835-844).

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Al-Mamary, Y. H., & Shamsuddin, A. (2015). Testing of the technology acceptance model in context of Yemen. *Mediterranean Journal of Social Sciences, 6*(4 Suppl. 1), 268–275. https://doi.org/10.5901/mjss.2015.v6n4s1p268

Armitage, C. J., & Conner, M. (2001). Efficacy of the Theory of Planned Behavior: A meta-analytic review. *British Journal of Social Psychology, 40*(4), 471-499. https://doi.org/10.1348/014466601164939

Asadi, S., Nilashi, M., Husin, A. R. C., & Yadegaridehkordi, E. (2016). Customers perspectives on adoption of cloud computing in banking sector. *Information Technology and Management, 18*(4), 305-330. https://doi.org/10.1007/s10799-016-0270-8

Awang, Z. (2012). *Research methodology and data analysis* (2nd ed.). UiTM Press.

Bailey, J. E., & Pearson, S. W. (1983). Development of a tool for measuring and analyzing computer user satisfaction. *Management Science, 29*(5), 530-545. https://doi.org/10.1287/mnsc.29.5.530

Bardakcı, S. (2019). Exploring high school students' educational use of YouTube. *International Review of Research in Open and Distributed Learning, 20*(2), 260-278. https://doi.org/10.19173/irrodl.v20i2.4282

Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin, 107*(2), 238–246. https://doi.org/10.1037/0033-2909.107.2.238

Beri, N., & Sharma, L. (2019). Teachers' attitude towards integrating ICT in teacher education. *International Journal of Innovative Technology and Exploring Engineering, 8*(8), 285-295. https://doi.org/10.35940/ijitee.J7767.0881019

Byrne, B. M. (2010). *Structural equation modeling with AMOS: Basic concepts, applications, and programming* (2nd ed.). Routledge Taylor & Francis Group.

Chang, C. C. (2012). Exploring the determinants of e-learning systems continuance intention in academic libraries. *Library Management, 34*(1/2), 40-55. https://doi.org/10.1108/01435121311298261

Chauhan, S. (2015). Acceptance of mobile money by poor citizens of India: Integrating trust into the technology acceptance model. *info, 17*(3), 58-68. https://doi.org/10.1108/info-06-2014-0073

Chen, C., & Tsai, D. (2007). How destination image and evaluative factors affect behavioral intentions. *Tourism Management, 28*(4), 1115-1122. https://doi.org/10.1016/j.tourman.2006.07.007

Cheng, Y. M. (2014). Extending the expectation-confirmation model with quality and flow to explore nurses continued blended e-learning intention. *Information Technology and People, 27*(2), 230-258. https://doi.org/10.1108/ITP-12-2012-0113

Childers, T. L., Carr, C. L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing, 77*(4), 511-535. https://doi.org/10.1016/S0022-4359(01)00056-2

Choet, C. T., & Xiangkang, G. (2009). Managerial power, stock-based compensation, and firm performance: Theory and evidence. *Department of Economics, Monash University Caulfield East, Victoria, 3145*.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-340. https://doi.org/10.2307/249008

DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research, 3*(1), 60-95. https://doi.org/10.1287/isre.3.1.60

DeLone, W. H., & McLean, E. R. (2003). The DeLone and McLean model of information systems success: A ten-year update. *Journal of Management Information Systems, 19*(4), 9-30. https://doi.org/10.1080/07421222.2003.11045748

Estriegana, R., Medina-Merodio, J., & Barchino, R. (2018). Analysis of competence acquisition in a flipped classroom approach. *Computer Application in Engineering Education, 27*(1), 49-64. https://doi.org/10.1002/cae.21844

Golnaz, R., Zainalabidin, M., Mad Nasir, S., & Eddie Chiew, F. C. (2010). Non-Muslims' awareness of halal principles and related food products in Malaysia. *International Food Research Journal, 17(3)*, 667–674.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Pearson Prentice Hall.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling: A Multidisciplinary Journal, 6*(1), 1-55. https://doi.org/10.1080/10705519909540118

Kaplan, D. (2009). *Structural equation modeling: Foundations and extensions*. SAGE Publications, Inc.

King, W. R., & He, J. (2006). A meta-analysis of the technology acceptance model. *Information & Management, 43*(6), 740-755. https://doi.org/10.1016/j.im.2006.05.003

Kulviwat, S., Bruner, G. C., Kumar, A., Nasco, S. A., & Clark, T. (2007). Toward a unified theory of consumer acceptance technology. *Psychology & Marketing, 24*(12), 1059–1084. https://doi.org/10.1002/mar.20263

Lee, M. C. (2009). Factors influencing the adoption of internet banking: An integration of TAM and TPB with perceived risk and perceived benefit. *Electronic Commerce Research and Applications, 8*(3), 130-141. https://doi.org/10.1016/j.elerap.2008.11.004

Mouakket, S., & Bettayeb, A. (2015). Investigating the factors influencing continuance usage intention of learning management systems by university instructors. *International Journal of Web Information Systems, 11*(4), 491-509. https://doi.org/10.1108/IJWIS-10-2015-0041

Nagy, J. T. (2018). Evaluation of online video usage and learning satisfaction: An extension of the technology acceptance model. *International Review of Research in Open and Distributed Learning, 19*(1). https://doi.org/10.19173/irrodl.v19i1.3293

Navarro, J. F., Hayashi, E., Power, C., Jenkins, A. R., Frenk, C. S., White, S. D. M., Springel, V., Stadel, J., & Quinn, T. R. (2004). The inner structure of ΛCDM haloes–III. Universality and asymptotic slopes. *Monthly Notices of the Royal Astronomical Society, 349*(3), 1039-1051. https://doi.org/10.1111/j.1365-2966.2004.07615.x

Pitt, L. F., Watson, R. T., & Kavan, C. B. (1995). Service quality: A measure of information systems effectiveness. *MIS Quarterly, 19*(2), 173-188.

Poelmans, S., & Wessa, P. (2013). A constructivist approach in a blended e-learning environment for statistics. *Interactive Learning Environments, 23*(3), 385-401. https://doi.org/10.1080/10494820.2013.766890

Robey, D., & Farrow, D. (1982). User involvement in information system development: A conflict model and empirical test. *Management Science, 28*(1), 73-85.

Rughoobur-Seetah, S., & Zuberia, Z. A. (2021). An evaluation of the impact of confinement on the quality of e-learning in higher education institutions. *Quality Assurance in Education, 29*(4), 422-444. https://doi.org/10.1108/QAE-09-2020-0157

Sagar, A. D., & Van der Zwaan, B. (2006). Technological innovation in the energy sector: R&D, deployment, and learning-by-doing. *Energy Policy, 34*(17), 2601-2608. https://doi.org/10.1016/j.enpol.2005.04.017

Salloum, S. A., & Shaalan, K. (2019). Factors affecting students' acceptance of e-learning system in higher education using UTAUT and structural equation modeling approaches. In *Proceedings of the International Conference on Advanced Intelligent Systems and Informatics 2018* (pp. 579-589). Springer, Cham. https://doi.org/10.1007/978-3-030-10873-4_54

Sánchez-Cruz, J. J., Jiménez-Moleón, J. J., Fernández-Quesada, F., & Sánchez, M. J. (2013). Prevalencia de obesidad infantil y juvenil en España en 2012. *Revista Española de Cardiología, 66*(5), 371-376. https://doi.org/10.1016/j.recesp.2012.09.019

Schmitt, N., & Stults, D. (1986). Methodology review: Analysis of multitrait-multimethod matrices. *Applied Psychological Measurement, 10*(1), 1-22. https://doi.org/10.1177/014662168601000101

Seddon, P. B. (1997). A respecification and extension of the DeLone and McLean model of IS success. *Journal of Information Systems Research, 8*, 240-253. https://doi.org/10.1287/isre.8.3.240

Sica, C., & Ghisi, M. (2007). The Italian versions of the Beck Anxiety Inventory and the Beck Depression Inventory-II: Psychometric properties and discriminant power. In M. A. Lange (Ed.), *Leading-edge psychological tests and testing research* (pp. 27-50). Nova Science Publishers.

Songkram, N., Chootongchai, S., Osuwan, H., Chuppunnarat, Y., & Songkram, N. (2023). Students' adoption towards behavioral intention of digital learning platform. *Education and Information Technologies, 28*(9), 11655-11677. https://doi.org/10.1007/s10639-023-11332-3

Sun, L. (2019). Rain-classroom teaching system – The Chinese innovation in the MOOCs era. *Afterschool Education in China, 03*, 72-73.

Venkatesh, V., & Davis, D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science, 46*(2), 186-204. https://doi.org/10.1287/mnsc.46.2.186

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly, 27*(3), 425-478. https://doi.org/10.2307/30036540

Wu, J., & Wang, Y. (2006). What drives mobile commerce? An empirical evaluation of the revised technology acceptance model. *Information & Management, 43*(5), 537-550. https://doi.org/10.1016/j.im.2006.03.003

Xu, A., Li, B., & Li, Y. (2024). Research on online and offline wisdom blended education model. *Theory and Practice of Education, 44*(15), 57-60.

Zhao, Z., & Xing, B. (2024). Construction of three-dimensional evaluation model of student development in modern vocational education. *Vocational and Technical Education, 45*(32), 74-79.