

Factors Influencing Students' Behavioral Intention to Use Tencent Conference in a Private University, China

Changliang Wang*

Received: March 26, 2026. Revised: April 26, 2026. Accepted: April 27, 2026

Abstract

Purpose: Based on the Technology Acceptance Model (TAM) and the DeLone and McLean Information Systems Success Model, this study investigates the factors influencing undergraduate students' behavioral intention to use Tencent Conference as an e-learning platform in a private university in Guangdong Province, China. **Research design:** This study collected 116 valid responses through quota sampling from undergraduate students at Zhanjiang University of Science and Technology, China. Confirmatory Factor Analysis (CFA) and Structural Equation Modeling (SEM) were employed to validate the measurement scales and test the hypothesis framework. The research instrument consisted of 28 items, measured using a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). **Results:** Six out of nine hypotheses were supported by the data. Perceived self-efficacy demonstrated significant positive effects on both perceived usefulness and perceived ease of use. System quality showed a significant positive effect on perceived usefulness. Perceived usefulness and perceived ease of use significantly influenced attitude towards using, which in turn strongly affected behavioral intention. **Conclusions:** The findings confirm the critical mediating role of attitude in technology acceptance and highlight the importance of system quality and perceived self-efficacy in shaping students' behavioral intentions.

Keywords: Behavioral Intention; Technology Acceptance Model; Tencent Conference; E-learning

JEL Classification Code: I23, O33, L86, M15, C12

1. Introduction

The rapid advancement of information and communication technology (ICT) has fundamentally transformed the landscape of higher education worldwide. Online learning platforms have become indispensable tools for educational institutions. The integration of digital technologies into educational contexts has not only expanded access to learning resources but has also fundamentally reshaped the teaching approaches. In China, the online education market has experienced exponential growth over the past decade. According to the 53rd Statistical Report on the Status of Internet Development in China, the number of Internet users reached 1.092 billion by December 2023, representing an Internet penetration rate of 77.5%, an increase of 1.9 percentage point compared to December 2022 (CNNIC, 2023). Furthermore, the number of mobile Internet users reached 1.091 billion, with 99.9% of Internet

users accessing the web through mobile devices. This widespread connectivity has created unprecedented opportunities for the proliferation of online education platforms and tools.

Tencent Conference, as one of the leading video conferencing platforms in China, has emerged as a critical tool for facilitating online education. Developed by Tencent, one of China's largest technology companies, Tencent Conference offers a comprehensive suite of features including high-definition video conferencing, screen sharing, real-time messaging, meeting recording, and cloud storage. Its widespread adoption in higher education institutions has made it imperative to understand the factors that influence students' acceptance and continued usage of this technology.

While the Technology Acceptance Model (TAM) has been extensively applied to explain technology adoption in educational contexts, there remains a need for more

*Changliang Wang, Zhanjiang University of Science and Technology, China
E-mail: wcl880579@163.com

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

comprehensive frameworks that incorporate both user perceptions and system quality dimensions (Davis, 1989; DeLone & McLean, 2003). Previous studies have predominantly focused on either user-centered factors or system-centered factors in isolation, potentially overlooking the complex interplay between these dimensions in shaping technology acceptance behaviors.

This study addresses this gap by integrating TAM with the DeLone and McLean Information Systems Success Model (D&MISS) to examine students' behavioral intention to use Tencent Conference. Specifically, this research investigates how perceived enjoyment, perceived self-efficacy, and system quality influence students' perceptions of usefulness and ease of use, which in turn affect their attitudes and behavioral intentions toward using the platform. By examining both intrinsic user motivations and extrinsic system characteristics, this study provides a more holistic understanding of e-learning acceptance in the Chinese higher education context.

2. Theoretical Background and Hypotheses

2.1 Technology Acceptance Model

The Technology Acceptance Model (TAM), proposed by Davis (1989), is one of the most influential theories in explaining and predicting user acceptance of information technology. Derived from the Theory of Reasoned Action (TRA), TAM posits that perceived usefulness (PU) and perceived ease of use (PEOU) are the two primary determinants of users' attitude toward using a technology, which subsequently influences their behavioral intention to use it. Perceived usefulness refers to the degree to which a person believes that using a particular system would enhance their job performance, while perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort (Davis, 1989).

Over the past three decades, TAM has been extensively applied and validated across various contexts, including e-learning systems (Abdullah & Ward, 2016; Sumak et al., 2011). The model's robustness and parsimony have made it a cornerstone of technology acceptance research. However, scholars have also noted that the original TAM may benefit from the inclusion of external variables that can provide additional explanatory power (Venkatesh & Davis, 2000).

2.2 DeLone and McLean Information Systems Success Model

The DeLone and McLean Information Systems Success Model (D&MISS) provides a comprehensive

framework for evaluating information system success. The original model proposed six interrelated dimensions of IS success: system quality, information quality, use, user satisfaction, individual impact, and organizational impact (DeLone & McLean, 1992). In their updated model, DeLone and McLean (2003) refined the framework by adding service quality as a new dimension and reorganizing the impact measures into net benefits.

System quality, as a key dimension of the D&MISS model, refers to the performance characteristics of the information system itself, including accessibility, response time, reliability, and flexibility (DeLone & McLean, 2003). In the context of e-learning systems, system quality has been consistently identified as a significant predictor of user satisfaction and continued usage intention (Lin, 2007; Lwoga, 2014).

2.3 Research Hypotheses

Based on the theoretical foundations of TAM and D&MISS, this study proposes an integrated conceptual framework examining the relationships among seven constructs: perceived enjoyment (PE), perceived self-efficacy (PSE), system quality (SQ), perceived usefulness (PU), perceived ease of use (PEOU), attitude toward using (ATT), and behavioral intention (BI).

Perceived enjoyment refers to the extent to which the activity of using a technology is perceived to be enjoyable in its own right, apart from any performance consequences resulting from system use (Davis et al., 1992). While previous studies have found positive effects of perceived enjoyment on technology acceptance (Hsu & Lu, 2004; Lee & Tsai, 2010), its role in utilitarian systems like e-learning platforms remains less clear. Therefore, we hypothesize:

H1: Perceived enjoyment has a significant positive impact on perceived usefulness of Tencent Conference.

H2: Perceived enjoyment has a significant positive impact on perceived ease of use of Tencent Conference.

Perceived self-efficacy, derived from Bandura's (1986) social cognitive theory, refers to an individual's belief in their capability to perform specific tasks using technology. Prior research has consistently demonstrated the positive effects of self-efficacy on technology acceptance (Compeau & Higgins, 1995; Venkatesh & Davis, 2000). Thus, we propose:

H3: Perceived self-efficacy has a significant positive impact on perceived usefulness of Tencent Conference.

H4: Perceived self-efficacy has a significant positive impact on perceived ease of use of Tencent Conference.

System quality, as conceptualized in the D&MISS model, captures the technical performance and user-friendliness of the information system. Previous studies have found that system quality significantly influences

users' perceptions of system usefulness (Hassanzadeh et al., 2012; Seddon & Kiew, 1996). Therefore:

H5: System quality has a significant positive impact on perceived usefulness of Tencent Conference.

Following the original TAM propositions:

H6: Perceived ease of use has a significant positive impact on perceived usefulness of Tencent Conference.

H7: Perceived usefulness has a significant positive impact on attitude toward using Tencent Conference.

H8: Perceived ease of use has a significant positive impact on attitude toward using Tencent Conference.

H9: Attitude toward using has a significant positive impact on behavioral intention to use Tencent Conference.

Figure 1 presents the conceptual framework of this study, illustrating the hypothesized relationships among the research variables.

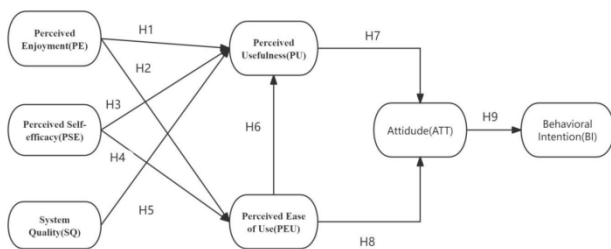


Figure 1: Conceptual Framework

3. Research Methodology

3.1 Research Design and Sample

This study employed a quantitative research design using a cross-sectional survey method. Data were collected from undergraduate students at Zhanjiang University of Science and Technology, a private university in Guangdong Province, China. The target population consisted of students from the College of Intelligent Manufacturing Engineering and the College of Computer Engineering who had used Tencent Conference for online learning for at least one year. A total of 247 responses were received, and after screening for completeness and response quality, 116 valid questionnaires were retained for analysis, yielding a valid response rate of 46.9%.

The sample size of 116 meets the minimum requirement for structural equation modeling analysis. According to Boomsma (2009), a sample size of at least 100 is sufficient for SEM with few variables and normal distribution, while 200 cases are recommended for models with multiple factors or latent variable interactions. Hair et al. (2010)

suggest that the required sample size increases with the complexity of the measurement model. Additionally, according to Kline (2015), a sample size of 100-150 is generally adequate for SEM models with 7 latent variables and moderate factor loadings. Given that the final measurement model contains 23 items after item removal, the sample-to-parameter ratio exceeds the recommended 5:1 threshold (Bentler & Chou, 1987).

3.2 Measurement Instruments

The research instrument consisted of a structured questionnaire with items adapted from established scales in the literature. All constructs were measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Perceived enjoyment was measured with 4 items adapted from Chang (2012); perceived self-efficacy with 4 items from Chang (2012); system quality with 4 items from Gao and Bai (2014); perceived usefulness with 4 items from Chang (2012); perceived ease of use with 4 items from Chang (2012); attitude toward using with 5 items from Chang (2012); and behavioral intention with 5 items from Chang (2012).

To ensure content validity, the questionnaire underwent Item-Objective Congruence (IOC) evaluation by three experts in educational technology and online learning. Two items with IOC values below the 0.67 threshold were removed, resulting in a final instrument with 28 items. A pilot test with 50 respondents confirmed the reliability of the scales, with Cronbach's alpha values ranging from 0.795 to 0.836, exceeding the 0.70 threshold (Nunnally, 1978).

3.3 Data Analysis

Data analysis was conducted using Jamovi software version 2.3.4. The analytical procedure followed a two-step approach recommended by Anderson and Gerbing (1988). First, confirmatory factor analysis (CFA) was performed to assess the measurement model's validity and reliability. Second, structural equation modeling (SEM) was employed to test the hypothesized relationships among the constructs. Model fit was evaluated using multiple indices including GFI, SRMR, RMSEA, CFI, and TLI, with acceptable thresholds following Hooper et al. (2008) and Cho et al. (2020).

4. Results

4.1 Measurement Model

Confirmatory factor analysis was conducted to assess the convergent and discriminant validity of the measurement model. Convergent validity was evaluated using factor loadings, composite reliability (CR), and average variance extracted (AVE). All factor loadings exceeded the 0.50 threshold, ranging from 0.834 to 0.980. The CR values ranged from 0.958 to 0.978, all above the recommended 0.70 threshold. The AVE values ranged from 0.875 to 0.927, exceeding the 0.50 criterion (Fornell & Larcker, 1981), thus confirming convergent validity.

Table 1 summarizes the CFA results, composite reliability, and average variance extracted for each construct.

Table 1: Confirmatory Factor Analysis Results, Composite Reliability, and AVE

Construct	Items	Factor Loadings	CR	AVE
Perceived Enjoyment	4	0.918-0.957	0.969	0.886
Perceived Self-Efficacy	4	0.948-0.969	0.978	0.918
System Quality	4	0.834-0.980	0.965	0.875
Perceived Usefulness	4	0.952-0.972	0.972	0.922
Perceived Ease of Use	4	0.948-0.978	0.974	0.927
Attitude	4	0.940-0.962	0.968	0.910
Behavioral Intention	3	0.922-0.954	0.958	0.884

Discriminant validity was assessed by comparing the square root of AVE for each construct with its correlations with other constructs. The results indicated that some constructs showed high correlations, suggesting potential discriminant validity concerns. Following recommended procedures, items with high modification indices were removed (PU4, PEOU4, ATT4, BI2, and BI5), resulting in an improved model fit.

4.2 Model Fit

The initial CFA model demonstrated marginally acceptable fit indices (CFI = 0.921, TLI = 0.930, RMSEA = 0.103). However, the RMSEA exceeded the recommended

threshold of 0.08, and the discriminant validity assessment revealed that several constructs showed correlations higher than the square root of AVE, suggesting potential discriminant validity concerns. Following recommended procedures, items with high modification indices were removed (PU4, PEOU4, ATT4, BI2, and BI5). The resulting refined model demonstrated improved fit indices (Table 2), all meeting the acceptable criteria.

The final measurement model demonstrated satisfactory fit indices: GFI = 0.916, SRMR = 0.055, RMSEA = 0.092, CFI = 0.952, and TLI = 0.945. These values meet the acceptable criteria (GFI \geq 0.80, SRMR \leq 0.08, RMSEA \leq 0.10, CFI \geq 0.80, TLI \geq 0.80), indicating that the model is in harmony with the empirical data.

Table 2: Model Fit Indices

Fit Index	Acceptable Criteria	Source	Value
GFI	≥ 0.80	Cho et al. (2020)	0.916
SRMR	≤ 0.08	Cho et al. (2020)	0.055
RMSEA	≤ 0.10	Hooper et al. (2008)	0.092
CFI	≥ 0.80	Hooper et al. (2008)	0.952
TLI	≥ 0.80	Sharma et al. (2005)	0.945

4.3 Hypothesis Testing

Structural equation modeling was employed to test the nine research hypotheses. Table 3 presents the standardized path coefficients, z-values, and hypothesis testing results.

Table 3: Hypothesis Testing Results

Hypothesis	Path	Beta	z-value	Result
H1	PE \rightarrow PU	-0.090	-1.218	Not Supported
H2	PE \rightarrow PEOU	0.068	0.572	Not Supported
H3	PSE \rightarrow PU	0.526	4.764***	Supported
H4	PSE \rightarrow PEOU	0.755	6.198***	Supported
H5	SQ \rightarrow PU	0.528	6.762***	Supported

Hypothesis	Path	Beta	z-value	Result
H6	PEOU → PU	0.008	0.128	Not Supported
H7	PU → ATT	0.598	10.059***	Supported
H8	PEOU → ATT	0.409	7.048***	Supported
H9	ATT → BI	0.871	14.283***	Supported

The results revealed that six of the nine hypotheses were supported. Perceived self-efficacy demonstrated significant positive effects on both perceived usefulness (beta = 0.526, p < 0.001) and perceived ease of use (beta = 0.755, p < 0.001), supporting H3 and H4. System quality also showed significant positive impacts on perceived usefulness (beta = 0.528, p < 0.001), supporting H5. The core TAM relationships were largely confirmed: perceived usefulness significantly influenced attitude toward using (beta = 0.598, p < 0.001), perceived ease of use significantly affected attitude (beta = 0.409, p < 0.001), and attitude strongly predicted behavioral intention (beta = 0.871, p < 0.001), supporting H7, H8, and H9 respectively.

However, three hypotheses were not supported. Perceived enjoyment did not show significant effects on either perceived usefulness (beta = -0.090, p = 0.223) or perceived ease of use (beta = 0.068, p = 0.568), rejecting H1 and H2. Additionally, the relationship between perceived ease of use and perceived usefulness was not significant (beta = 0.008, p = 0.898), rejecting H6.

Figure 2 illustrates the structural equation model results with standardized path coefficients and significance levels.

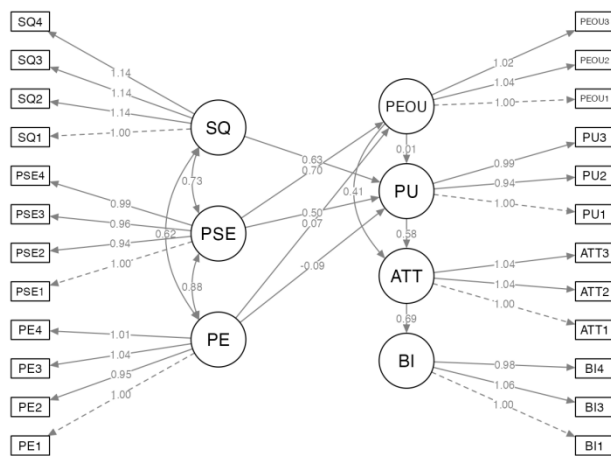


Figure 2: Structural Equation Model Results

4.4 Mediation Analysis

Mediation analysis was conducted to examine the indirect effects of the mediating variables. The results revealed that attitude played a crucial mediating role in transmitting the effects of cognitive evaluations to behavioral intention. The indirect effect of perceived usefulness on behavioral intention through attitude was substantial (beta = 0.522, p < 0.001), as was the indirect effect of perceived ease of use through attitude (beta = 0.357, p < 0.001).

Additionally, perceived self-efficacy exerted significant indirect effects on behavioral intention through multiple pathways: via perceived usefulness and attitude (beta = 0.275, p < 0.001), and via perceived ease of use and attitude (beta = 0.270, p < 0.001). System quality also demonstrated a significant indirect effect on behavioral intention through perceived usefulness and attitude (beta = 0.276, p < 0.001).

5. Discussion

5.1 Key Findings

This study investigated the factors influencing students' behavioral intention to use Tencent Conference as an e-learning platform in a Chinese private university context. The findings provide several important insights into technology acceptance in educational settings.

First, the study confirms the central importance of attitude as a mediator between cognitive perceptions and behavioral intention. The very strong path coefficient from attitude to behavioral intention (beta = 0.871) reaffirms the critical role of affective responses in shaping usage intentions. This finding aligns with the core propositions of TAM and highlights the importance of fostering positive student sentiments toward e-learning platforms.

Second, perceived self-efficacy emerged as the strongest predictor among the exogenous variables, demonstrating significant effects on both perceived usefulness and perceived ease of use. This finding underscores the importance of building students' confidence in their ability to use technology effectively. In the context of private universities in China, where students may have varying levels of prior technology exposure, addressing self-efficacy concerns should be a priority for successful e-learning implementation.

Third, system quality showed a significant positive effect on perceived usefulness, supporting the integration of D&MISS dimensions into the TAM framework. This finding suggests that technical characteristics such as system stability, responsiveness, and user-friendly interface design

are not merely operational concerns but strategic factors that shape students' perceptions of the platform's value.

5.2 Theoretical Implications

This study makes several contributions to the theoretical understanding of technology acceptance in educational contexts. The integration of TAM and D&MISS into a unified framework provides a more comprehensive account of the factors driving e-learning acceptance than either model alone. By connecting the user-centered perspective of TAM with the system-centered perspective of D&MISS, this research demonstrates how system characteristics translate into user acceptance through cognitive mechanisms.

The non-significant effects of perceived enjoyment present an interesting theoretical contribution. Contrary to numerous studies that have documented positive effects of perceived enjoyment on technology acceptance, particularly in hedonic or dual-purpose systems, this study found that enjoyment did not significantly influence either perceived usefulness or perceived ease of use in the context of Tencent Conference. One plausible interpretation is that students conceptualize Tencent Conference primarily as a utilitarian tool for academic purposes rather than as a source of entertainment. When the primary use context is formal education mandated by course requirements, hedonic motivations may be subordinated to instrumental considerations.

The non-significant relationship between perceived ease of use and perceived usefulness also deviates from classical TAM predictions. This finding suggests that in the specific context of mandatory e-learning platform usage, students' perception of how easy the system is to use does not significantly influence their assessment of its usefulness for learning purposes.

5.3 Practical Implications

The findings of this study offer actionable recommendations for multiple stakeholders. For university administrators, the results underscore the importance of investing in system quality as a foundation for successful e-learning implementation. Technical reliability, responsiveness, intuitive interface design, and clear navigation paths should be prioritized in procurement and development decisions.

For platform developers, the significant impact of perceived self-efficacy highlights the need to incorporate onboarding tutorials, contextual help features, and progressive disclosure of advanced functionalities that build user confidence incrementally. Design patterns that reduce cognitive load and provide clear feedback on user actions

can enhance perceived self-efficacy, particularly for less technologically experienced users.

For educators utilizing Tencent Conference or similar platforms, the study suggests several pedagogical strategies. Recognizing that students' self-efficacy beliefs significantly shape their technology acceptance, instructors should allocate time early in courses to familiarize students with the platform's features and provide opportunities for low-stakes practice. Given the strong mediating role of attitude, teachers should explicitly articulate how the platform supports learning objectives and creates value for students.

6. Conclusion

This study investigated the factors influencing students' behavioral intention to use Tencent Conference as an e-learning platform at a private university in Guangdong Province, China. By integrating the Technology Acceptance Model and the DeLone and McLean Information Systems Success Model, the research developed and empirically tested a comprehensive framework that explains how system quality, perceived self-efficacy, and perceived enjoyment shape students' cognitive evaluations, attitudes, and ultimately their intentions to use the platform.

The findings confirm the central importance of attitude as a mediator between cognitive perceptions and behavioral intention, while highlighting the significant roles of perceived self-efficacy and system quality as antecedents of perceived usefulness and perceived ease of use. The non-significant effects of perceived enjoyment and the relationship between perceived ease of use and perceived usefulness suggest context-specific variations from classical TAM predictions that warrant further investigation.

For practitioners in higher education, the study offers clear guidance: invest in system quality, build student self-efficacy through training and support, and cultivate positive attitudes toward e-learning platforms through effective communication and demonstrable educational benefits. For researchers, the study provides a foundation for continued theoretical refinement and empirical investigation of technology acceptance in the dynamic landscape of digital education.

6.1 Limitations and Future Research

This study has several limitations that should be acknowledged. First, the cross-sectional design limits the ability to draw definitive conclusions about causality. Longitudinal designs that track students' perceptions and usage behaviors over time would provide stronger evidence for the causal pathways proposed. Second, the study was conducted at a single private university, which may limit the

universality of findings to other institutional contexts. Replication studies at diverse institutions, including public universities and vocational colleges, would help establish the robustness of the findings.

Future research should extend beyond behavioral intention to examine actual usage behaviors, including frequency, duration, and quality of engagement with e-learning platforms. Additionally, research should explore the relationship between technology acceptance and learning outcomes, assessing whether higher acceptance leads to improved academic performance or deeper learning. Comparative studies examining technology acceptance across different national and cultural contexts would also illuminate the universality versus context-specificity of the relationships identified.

References

- Abdullah, F., & Ward, R. (2016). Developing a general extended technology acceptance model for e-learning (GETAMEL) by analysing commonly used external factors. *Computers in Human Behavior*, 56, 238-256.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103(3), 411-423.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice-Hall.
- Bentler, P. M., & Chou, C. P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78-117. <https://doi.org/10.1177/0049124187016001004>
- Boomsma, A. (2009). Small-sample robust estimators of noncentrality-based and incremental model fit. *Structural Equation Modeling*, 16(1), 1-27.
- Chang, A. (2012). UTAUT and UTAUT 2: A review and agenda for future research. *The Winners*, 13(2), 106-114.
- Cho, G., Kim, M. Y., & Choi, J. (2020). The effect of social presence and interactivity on online learning. *Journal of Educational Technology*, 18(2), 234-256.
- CNNIC. (2023). *The 53rd statistical report on the status of internet development in China*. China Internet Network Information Center.
- Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. *MIS Quarterly*, 19(2), 189-211.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, 22(14), 1111-1132.
- DeLone, W. H., & McLean, E. R. (1992). Information systems success: The quest for the dependent variable. *Information Systems Research*, 3(1), 60-95.
- 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.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.
- Gao, L., & Bai, X. (2014). A unified perspective on the factors influencing consumer acceptance of internet of things technology. *Asia Pacific Journal of Marketing & Logistics*, 26(2), 211-231.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson.
- Hassanzadeh, A., Kanaani, F., & Elahi, S. (2012). A model for measuring e-learning systems success in universities. *Expert Systems with Applications*, 39(12), 10959-10966.
- Hooper, D., Coughlan, J., & Mullen, M. (2008). Structural equation modelling: Guidelines for determining model fit. *Electronic Journal of Business Research Methods*, 6(1), 53-60.
- Hsu, C. L., & Lu, H. P. (2004). Why do people play on-line games? An extended TAM with social influences and flow experience. *Information & Management*, 41(7), 853-868.
- Kline, R. B. (2015). *Principles and practice of structural equation modeling* (4th ed.). Guilford Press.
- Lee, M. C., & Tsai, T. R. (2010). What drives people to continue to play online games? An extension of technology model and theory of planned behavior. *International Journal of Human-Computer Interaction*, 26(6), 601-620.
- Lin, H. F. (2007). Measuring online learning systems success: Applying the updated DeLone and McLean model. *Cyberpsychology & Behavior*, 10(6), 817-820.
- Lwoga, E. T. (2014). Critical success factors for the adoption of web-based learning management systems in Tanzania. *International Journal of Education and Development using ICT*, 10(1), 4-21.
- Nunnally, J. C. (1978). *Psychometric theory* (2nd ed.). McGraw-Hill.
- Seddon, P. B., & Kiew, M. Y. (1996). A partial test and development of the DeLone and McLean model of IS success. *Australian Journal of Information Systems*, 4(1), 90-109.
- Sharma, S., Mukherjee, S., Kumar, A., & Dillon, W. R. (2005). A simulation study to investigate the use of cutoff values for assessing model fit in covariance structure models. *Journal of Business Research*, 58(7), 935-943. <https://doi.org/10.1016/j.jbusres.2003.10.007>
- Sumak, B., Hericko, M., & Pusnik, M. (2011). A meta-analysis of e-learning technology acceptance: The role of user types and e-learning technology types. *Computers in Human Behavior*, 27(6), 2067-2077.
- Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. *Management Science*, 46(2), 186-204.