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Undergraduates' Behavioral Intention to Use E-Guests to Facilitate Online Learning in The Public Universities in Chongqing, China

Ren Hongwei*, Chalinee Plukphonngam

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Abstract

Purpose: This study evaluates the determinants that significantly affect undergraduate design students' behavioral intentions to invite e-guests in online education from three essential public universities in Chongqing, China. A conceptual framework proposes the relationship between self-efficacy, perceived enjoyment, perceived ease of use, perceived usefulness, attitude, social influence, and behavioral intention. **Research design, data, and methodology:** A quantitative approach was used with 495 samples, and a questionnaire was distributed to undergraduate students at three target universities. The sampling techniques are judgmental stratified random and convenience sampling. Content validity was reserved by index of item objective congruence (IOC) at a score of 0.6 or over. Pilot test of 30 samples was approved by Cronbach's Alpha reliability test at a score of 0.7 and above. Confirmatory Factor Analysis (CFA) and the Structural Equation Model were utilized for statistical analysis (SEM), as well as evaluations of the goodness of model fit, correlation validity, and reliability of each factor. **Results:** Seven hypotheses have been established to accomplish the research objectives, with the attitude has the strongest effect on behavioral intention. **Conclusion:** It is recommended that the administrations of public universities should enhance the critical determinants of effective implementation of e-guests in online learning to enhance students' behavioral intentions.

Keywords: E-guests, Online Learning, Undergraduates, Behavioral Intention, China

JEL Classification Code: E44, F31, F37, G15

1. Introduction

With COVID-19 impacting online education since 2020, students across the country have been receiving more and more online education. Therefore, online education has become a trend in advanced Chinese education. Before the epidemic, teaching and learning took place in a variety of

locations and mainly in the physical format. Besides, students can communicate and interact with their instructor face to face. Now universities have been forced to consider using online platforms as an alternative to real classrooms. Consequently, online platforms are increasingly used to teach in this particular period. It is necessary for instructors and teaching units at universities to consider different and effective teaching strategies for teaching in a virtual

1 *Ren Hongwei, Deputy Director and Associate Professor of Digital Media Art Department, Design school, Sichuan Fine Arts Institute, Chongqing, China. Email: renhongwei@scaif.edu.cn.
2 Chalinee Plukphonngam, The HRH Princess Chulabhorn College of Medical Science. Email: chalineeplukhd@gmail.com

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environment in order to ensure quality teaching. Since the outbreak of COVID-19, e-guests have become a part of online learning and teaching. Therefore, the e-guest was very early and needed to be further examined from multiple aspects. Besides, the COVID-19 pandemic is predicted to continue to affect the whole world, and long distances between students and guests from universities or industries will always exist. Therefore, utilizing e-guests for online student learning may still be a crucial strategy in the future.

Fulton (2020) defined e-guests as external visitors who provide students with professional and disciplinary expertise in a virtual teaching environment. A virtual environment can also be used to recognize e-guests in various ways, according to the researcher, including the delivery of lectures, providing expert input on questions, responding to discussions, and providing additional material, such as readings and videos, to enhance student engagement. E-guests have been discussed in many previous studies. Due to their credibility, Eveleth and Baker-Eveleth (2009) demonstrated that online guests could facilitate student learning. According to Farruggio (2009), e-guests can assist students in developing their professional skills and serve as role models for the students. As a result of using e-guests, experts from afar can contribute to local classrooms (Holtzblatt & Tschakert, 2011).

Considering the importance of inviting industry experts and interdisciplinary experts to give a lecture and hold workshops for art and design education, Chinese universities began incorporating e-guests into their online learning and teaching after the outbreak of COVID-19. As a result, the use of e-guest was at an early stage and needed to be further examined from various perspectives. The feelings and experiences of students are essential for practical study and for improving the employment of e-guests.

Chinese universities may resume large-scale online education anytime due to their policies to prevent Covid-19's spread. Furthermore, since there are few quantitative studies on using e-guests in China, it is essential to examine the factors influencing students' behavioral intentions to utilize e-guests in online learning. First, undergraduate design students may invite e-guests with more comprehensive and interdisciplinary backgrounds in design, such as management and marketing. Experts in this field can provide undergraduate students with a comprehensive understanding of design-related information and techniques. Additionally, in real-life educational situations, e-guests may not be available, so the findings of this study could help universities determine whether to use online e-guests in the future to enhance the quality of art and design education.

2. Literature Review

2.1 Self-Efficacy

Self-efficacy, as defined by Bandura (1977) is an assessment of the ability of an individual to accomplish a particular task. SE was defined by Compeau and Higgins (1995) as the capacity of users to apply it to various scenarios rather than copy or save facts. Besides, Thong et al. (2004) defined SE as whether users perceive the use of the product as satisfactory, effective, and productive. SE can also be understood as the degree of confidence individuals have in their ability to cope with challenging circumstances (Sergueeva & Shaw, 2017). Meuter et al. (2005) discovered that consumers are more inclined to adopt favorable attitudes about technology use when they perceive their own SE as being positive. Moreover, Lee et al. (2006) found that individuals with high SE believe they can accomplish well on Massive Open Online Courses (MOOCs), and found a relationship between perceived ease of use (PEOU) and SE, showing that students with higher levels of SE were more inclined to participate since the system was simple for them to master their own. Therefore, this research hypothesizes the relationship between self-efficacy and perceived ease of use per the following:

H1: Self-efficacy has a significant effect on perceived ease of use.

2.2 Perceived Enjoyment

Generally, perceived enjoyment (PE) refers to a sense of enjoyment and satisfaction from engagement in activities (Teo & Lim, 1997). According to Shao (2018), PE represents people's intrinsic motivation and is an intrinsic psychological reward. Furthermore, Davis et al. (1992) found that intrinsic motivation can significantly influence users' intentions. Additionally, Bereiter and Scardamalia (2014) demonstrated that PE could also be defined as cognitive aspects, which can be related to how people assess their interactions with intelligent equipment for learning on a subjective and holistic basis. According to Childers et al. (2001), people's attitudes are a product of their personal enjoyment experiences. Furthermore, Yu et al. (2005) confirmed that enjoyable experiences generate positive attitudes, such as happiness. Consequently, the following theory is derived:

H2: Perceived enjoyment has a significant effect on attitude.

2.3 Perceived Ease of Use

According to Venkatesh et al. (2003) perceived ease of use, or PEOU, refers to the degree to which a system is convenient. Moreover, Huang et al. (2007) defined PEOU as

the extent to which individuals think using an e-learning system requires minimal effort. Davis (1989) defined PEOU as the degree to which a user believes he or she can utilize a specific technology without difficulty. Chen et al. (2002) and Huang et al. (2007) have shown that the PEOU will positively and directly influence a user's attitudes toward using the system. The antecedently academic exploration from Venkatesh et al. (2003) also provided evidence that people would utilize the product if it helped them achieve their objectives. Additionally, Chen et al. (2002) suggested that the perception of ease of use has a direct and positive influence on variables in TAM, including attitudes toward using and perceived usefulness. Huang et al. (2007) found that PEOU directly influences PU. Hence, the hypotheses were proposed as follows:

H3: Perceived ease of use has a significant effect on perceived usefulness.

H5: Perceived ease of use has a significant effect on attitude.

2.4 Perceived Usefulness

The perceived utility is one of the critical elements determining attitudes toward information systems (Davis, 1989). Additionally, earlier researchers defined PU as the degree to which a person's use of technology would enable them to complete their task(s) more efficiently (Venkatesh et al., 2003). Moreover, according to Mohammadi (2015), perception of usefulness refers to the degree to which a person's belief in applying a specific system facilitates their performance when completing a task. Moreover, Mathieson (1991) argues that PU is one of the factors that affect ATT, while other researchers argued that PU, as well as PEOU, play a significant role in affecting ATT among users (O' Cass & Fenech, 2003). In Chauhan (2015)'s research on the use of mobile money by poor Indians, it is shown that PU plays a significant role in influencing users' ATT. Therefore, a following hypothesis is proposed:

H4: Perceived usefulness has a significant effect on attitude.

2.5 Attitude

According to Davis (1989), the technology acceptance model (TAM) comprises several variables, such as behavioral intentions, attitudes toward technology, and PEOU. If users feel that technology would help them increase their productivity, they are more inclined to accept it (Davis & Venkatesh, 1996). Based on the research conducted by Hsiao and Tang (2015) to examine the elements influencing library self-service technology acceptance, users' attitudes towards self-service systems play a crucial role in their intention to use it. An antecedently academic exploration from Wu and Liu (2007) indicated that the effects of attitudes on a person's intention to use a system

have also been demonstrated by extensive research, including this, which Holsapple and Wu (2008) further prove. **H7:** Attitude has a significant effect on behavioral intention.

2.6 Social Influence

Social influence is the perception that individuals who significantly influence an individual think he or she should take action, such as by using technology or systems (Venkatesh, 2000). Besides, Wang et al. (2016) indicated that SI is how other people's views or statements influence those in focus. According to a study by Kulviwat et al. (2009), people are more likely to embrace high-tech innovations when SI is present. This suggests that SI has a beneficial impact on users' willingness to adopt high-tech innovations. Chua et al. (2018) suggested that social networking apps, SI, and performance expectancy all influence users' behavior. This, in turn, influences their behavior when using technology in the future, as shown in the proposed hypothesis:

H6: Social influence has a significant effect on behavioral intention.

2.7 Behavioral Intention

Fishbein and Ajzen (1975) defined behavior intention, or BI, as the intensity of an individual's intention to do something. Behavioral intention (BI) is the direct antecedent of the actual behavior, according to a later study by Allen et al. (1998). Additionally, Hu and Lai (2019) suggested that attitudes toward action and the stress imposed by society can be used to predict individuals' BIs. Besides, information technology users' BIs were determined by their perceived usefulness and ease of use (Cao & Jittawiriyankoon, 2022). At the same time, these two constructs illustrate the significant differences between users' behavioral intentions to use information technology (Venkatesh, 2000).

3. Research Methods and Materials

3.1 Research Framework

As shown in Figure 1, the conceptual framework was constructed based on an analysis of previous academic research frameworks. The variables are self-efficacy (SE), the perceived ease of use (PEOU), perceived enjoyment (PE), perceived usefulness (PU), attitudes (ATT), social influence (SI), and behavioral intention (BI).

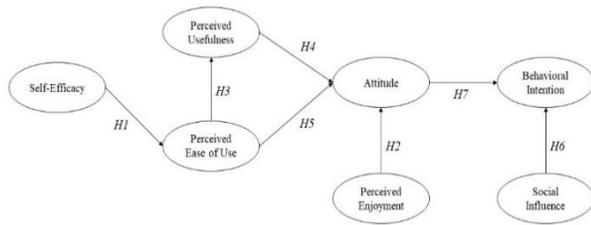


Figure 1: Conceptual Framework

- H1:** Self-efficacy has a significant effect on perceived ease of use.
- H2:** Perceived enjoyment has a significant effect on attitude.
- H3:** Perceived ease of use has a significant effect on perceived usefulness.
- H4:** Perceived usefulness has a significant effect on attitude.
- H5:** Perceived ease of use has a significant effect on attitude.
- H6:** Social influence has a significant effect on behavioral intention.
- H7:** Attitude has a significant effect on behavioral intention.

3.2 Research Methodology

Undergraduate students in design majors from three universities who have used e-guests in online learning at least once were asked to complete a questionnaire. In this study, observational data from Sichuan Fine Arts Institute (SCFAI), Chongqing University (CQU), and Chongqing Technology and Business University (CTBU) were aggregated and evaluated to determine the factors that significantly influenced participants’ BI to utilize e-guests in online learning. A five-point Likert scale, demographic information, and screening questions comprised in a survey. The screening question is “Are you undergraduate students in design majors from three universities who have used e-guests in online learning at least once?” Three experts conducted the item objective congruence test (IOC) with Ph.D. educational backgrounds and design education expertise to determine the instrument’s content validity. Therefore, the Item-Objective Congruence (IOC) was tested by three independent experts, with all scores exceeding 0.6. To ensure the reliability and consistency of the research instrument, 30 samples were used to test internal consistency reliability. Based on the reliability evaluation scores, all values of 0.60 or above were considered acceptable (Sekaran, 1992). The researchers gathered 495 questionnaires, which were analyzed using SPSS and AMOS. The Confirmatory Factor Analysis (CFA) was conducted to assess construct validity (convergence and discrimination). Additionally, structural equation modeling (SEM) was used to demonstrate significant effects among the variables.

3.3 Population and Sample Size

The study’s target population consists of undergraduate students majoring in design from three representative universities in Chongqing, China, which are Sichuan Fine Arts Institute (SCFAI), Chongqing University (CQU), and Chongqing Technology and Business University (CTBU). A statistical calculator by Soper (2022) was used to calculate the approximate sample size of 425 needed for this study. 500 are planned for the target population in this study.

3.4 Sampling Technique

Researchers utilized non-probability and probability sampling techniques, employing judgmental stratified random and convenience sampling. First, the researchers conducted judgmental sampling by selecting 2,500 design students from three universities in Chongqing, China, who had experienced using e-guests in online learning at least once. In addition, a stratified random sample of 500 students was also collected, as shown in Table 1. Convenience sampling was conducted by distributing the questionnaire via online channels such as WeChat and emails. The data were collected between March to July. In addition, the survey distributed to 2,500 participants with the target of 500 responses. However, only 495 valid data was obtained for the data analysis in this study.

Table 1: Sample Units and Sample Size

University	Sampling Units	Population Size Total = 2500	Proportional Sample Unit Size Total = 500
Sichuan Fine Arts Institute	Freshman	385	77
	Sophomore	365	73
	Junior	305	61
	Senior	295	59
Chongqing University	Freshman	190	38
	Sophomore	210	42
	Junior	225	45
	Senior	205	41
Chongqing Technology and Business University	Freshman	85	17
	Sophomore	90	18
	Junior	75	15
	Senior	70	14

Source: Created by the author.

4. Results and Discussion

4.1 Demographic Information

The demographic profile collected from the 495 undergraduate students is summarized in Table 2. From the perspective of gender, female participants comprised 74.95%,

while male students constituted 25.05%. For the targeted universities, 53.54% of the entire students were from Sichuan Fine Arts Institute, 33.54% were from Chongqing University, and 12.92% were from Chongqing Technology and Business University. In addition, 29.50% of the students majored in visual communication while 25.86% majored in industrial design, 5.86% majored in fashion design, 15.56% majored in digital media art, and 23.22% in other specialization directions.

Table 2: Demographic Profile

Demographic and General Data (N=500)		Frequency	Percentage
University	Sichuan Fine Arts Institute	265	53.54%
	Chongqing University	166	33.54%
	Chongqing Technology and Business University	64	12.92%
Gender	Male	124	25.05%
	Female	371	74.95%
Major Direction	Visual Communication	146	29.50%
	Industrial Design	128	25.86%

Demographic and General Data (N=500)	Frequency	Percentage
Fashion Design	29	5.86%
Digital Media Art	77	15.56%
Others	115	23.22%

4.2 Confirmatory Factor Analysis (CFA)

A confirmatory factor analysis (CFA) was applied to analyze whether the scale items' constituent and loading counts corresponded with hypotheses or assumptions. The results of 495 valid respondents demonstrated that each variable's items are significant, and the factor loadings are used to test discriminant validity. The goodness of fit is determined by each item's significance and acceptable values of the factor loadings. Factor loadings have p-values less than 0.05 and value greater than 0.30. The average variance extracted was more significant than the cutoff value of 0.5, and structural reliability was more significant than the cutoff value of 0.7. GFI, AGFI, NFI, CFI, TLI, and RMSEA were also used as model fit indicators in the CFA test. The convergent and discriminant validity were verified since all the values of this study shown in Table 3 matched the requirements.

Table 3: Confirmatory Factor Analysis Result, Composite Reliability (CR) and Average Variance Extracted (AVE)

Variables	Source of Questionnaire	No. of Items	Cronbach's Alpha	Factors Loading	CR	AVE
Self-Efficacy	Kulviwat et al. (2009)	4	0.901	0.811-0.860	0.901	0.695
Perceived Enjoyment	Wang et al. (2016)	4	0.846	0.706-0.820	0.848	0.582
Perceived Ease of Use	Huang et al. (2007)	3	0.850	0.637-0.919	0.861	0.679
Perceived Usefulness	Sánchez-Franco and Roldán (2005)	5	0.892	0.670-0.888	0.899	0.642
Attitude	Davis et al. (1992)	5	0.861	0.627-0.810	0.852	0.537
Social Influence	Buabeng-Andoh and Baah (2020)	4	0.863	0.745-0.833	0.864	0.614
Behavioral Intention	Alsaleh et al. (2019)	5	0.848	0.685-0.745	0.838	0.509

As shown in Table 4 below, CMIN/DF = 1.799, GFI = 0.918, AGFI = 0.899, RMSEA = 0.040, CFI = 0.963, NFI = 0.921 and TLI = 0.957. All the indicators obtained in this study passed the CFA test because they were feasible and met the good of fit criteria. Therefore, the measurement model confirms discriminant and convergent validity in this study.

Table 4: Goodness of Fit for Measurement Model

Index	Acceptable Values	Statistical Values
CMIN/DF	< 3.00 (Hair et al., 2010)	1.799
GFI	> 0.90 (Bagozzi & Yi, 1988)	0.918
AGFI	> 0.80 (Filippini, 1998)	0.899
RMSEA	< 0.05 (Browne & Cudeck, 1992)	0.040
CFI	> 0.90 (Hair et al., 2006)	0.963
NFI	> 0.90 (Hair et al., 2006)	0.921

Index	Acceptable Values	Statistical Values
TLI	> 0.90 (Hair et al., 2006)	0.957
Model Summary		Acceptable Model Fit

Remark: 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 = Normed fit index, and TLI = Tucker-Lewis index

Source: Created by the author.

Fornell and Larcker (1981) indicated that discriminant validity is tested by computing the square root of each AVE. Based on the results, the value of discriminant validity is larger than all inter-construct/factor correlations, therefore, the discriminant validity is supportive. The convergent and discriminant validity were adequate.

Table 5: Discriminant Validity

	SE	PE	PEOU	PU	ATT	SI	BI
SE	0.834						
PE	0.232	0.763					
PEOU	0.271	0.146	0.824				
PU	0.282	0.211	0.277	0.801			
ATT	0.223	0.263	0.246	0.436	0.733		
SI	0.306	0.258	0.388	0.351	0.392	0.784	
BI	0.246	0.181	0.285	0.383	0.414	0.343	0.713

Note: The diagonally listed value is the AVE square roots of the variables
Source: Created by the author.

4.3 Structural Equation Model (SEM)

After evaluating the CFA, a structural equation model (SEM) verification was conducted. Using SEM methodology, a particular linear coefficient combination is evaluated to determine whether or not the hypothesized causality explanation is valid. According to Hair et al. (2010), SEM aims to assess the model’s consistency with the data by fitting it to the data. Table 6 demonstrates that after being adjusted by AMOS, the combined values of CMIN/DF, GFI, AGFI, CFI, NFI, TLI, and RMSEA were all above acceptable limitations. As a result, the goodness of fit of the SEM was established.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable Criterion	Statistical Values After Adjustment
CMIN/DF	< 3 (Hair et al., 2010)	2.073
GFI	> 0.90 (Davis et al., 1992)	0.902
AGFI	> 0.80 (Filippini, 1998)	0.884
RMSEA	< 0.05 (Browne & Cudeck, 1992)	0.047
CFI	> 0.90 (Hair et al., 2006)	0.948
NFI	> 0.90 (Gold et al., 1995)	0.905
TLI	> 0.90 (Hair et al., 2006)	0.943
Model Summary		In harmony with empirical data

Remark: 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 = Normed fit index, and TLI = Tucker-Lewis index

Source: Created by the author.

4.4 Research Hypothesis Testing Result

The research matrix was calculated using the regression weights and R2 variances to determine the relevance of each variable. The results of each calculation are shown in Table 7.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: SE → PEOU	0.305	6.113***	Supported
H2: PE → ATT	0.331	6.630***	Supported
H3: PEOU → PU	0.218	4.526***	Supported
H4: PU → ATT	0.459	8.412***	Supported
H5: PEOU → ATT	0.265	2.301*	Supported
H6: SI → BI	0.243	4.722***	Supported
H7: ATT → BI	0.434	7.532***	Supported

Note: *** p<0.001, * p<0.05

Source: Created by the author.

Based on the findings in Table 7, the subsequent extensions were generated by researchers:

According to **H1**, SE is a considerable determinant of PEOU, with a standardized path parameter threshold of 0.305. According to Hair et al. (2010), SE played a critical role in determining the PEOU as it could influence the PEOU positively.

Regarding **H2**, the research results indicated that PE strongly influenced ATT, as measured by a standardized path coefficient of 0.331. Based on Chen et al. (2002), PE has a direct and positive influence on the variables in ATT, including attitudes towards using and PU. Later research by Huang et al. (2007) confirmed that PE positively influences a system's ATT.

The weakest significant impact in this study was found in **H3**, where the common coefficient value of 0.218 supported the hypothesis that PEOU had a significant influence on PU. The previously academic investigation by Childers et al. (2001) demonstrated that people's attitudes are shaped by their experiences of pleasure, satisfaction, and so on. Besides, according to Huang et al. (2007), the perception of enjoyment by users influences their attitude when it comes to research concerning the behavior of mobile learners.

Additionally, Hypothesis **H4** showed that, with a typical coefficient value of 0.459, PU expectancy had the most significant impact on participants' attitudes. Mathieson (1991) suggested that PU is a crucial component impacting ATT.

Besides, Hypothesis **H5** showed that a common coefficient value of 0.265 showed that PEOU significantly impacted ATT in this study. O’Cass and Fenech (2003) found that people's perception of ease of use positively and immediately impacts their attitudes and perception of usefulness.

With a standard coefficient of 0.243, the **H6** indicated that SI was significantly positively associated with BI. According to San Martin and Herrero (2012), individuals are likely to follow the words of their reference group and act when the reference group is in a position to award or punish the desired behaviors or non-behaviors.

As a result, **H7** determined that ATT significantly impacted behavioral intention, as reflected in a statistical score of 0.434 on the standard coefficient of active influence. This was the second most substantial significant effect. The antecedently academic explorations from Wu and Liu (2007) have proved that ATT positively affects a person's intention to use a system.

5. Conclusions and Recommendation

5.1 Conclusion and Discussion

This study aimed to investigate the factors that determine the BI of undergraduate design students to use e-guests in online learning at public universities in Chongqing, China. A conceptual framework was proposed, and seven hypotheses were constructed to validate how SE, PE, PEOU, PU, ATT, SI, and BI interrelate. Four hundred ninety-five valid respondents were collected from 500 undergraduate design students who at least had the experience of using E-guests in online learning. The Confirmatory Factor Analysis (CFA) was performed as a quantitative evaluation of the data's validity and reliability and the study framework. The entire hypothesis was supported when the acute effects on BI were examined using the Structural Equation Model (SEM).

According to the conclusions of this research, ATT had the greatest significant impact on undergraduate students' BI to use of e-guests in online learning. Moreover, both PEOU, PE, and PU had a significant direct impact on ATT. However, this research showed that PU had the most potent impact value on ATT among these three variables. Moreover, with a substantial effect on PEOU, PU and SE were also significantly influenced by PEOU. In conclusion, seven hypotheses have been established to accomplish the research objectives.

5.2 Recommendation

Following the statistical analysis of this quantitative study, the researchers conclude that corresponding recommendations for using e-guests among undergraduate design students in online education should be emphasized in the following areas. First, ATT had a most substantial direct influence on BI. Students' BI will be supported if they have a favorable ATT toward learning about using E-guests. In this research, PEOU, PE, and PU directly affected ATT, of which the most powerful is PU. Therefore, it can be seen that in future teaching practice, the instructors and teaching units should prepare and provide teaching materials that will facilitate students to undertake tasks more efficiently in online learning. Besides, balancing the teaching materials

and assignments must be fully considered with the inviting experts.

Second, it can also be seen that the undergraduate design students' BI would be influenced by their reference group's recommendation and positive social environment. Therefore, the introduction and encouragement of using e-guests should be fully developed by the university instructors and teaching units, disseminating a positive social atmosphere for the students and their reference groups.

Additionally, the researcher proposes that instructors and university teaching units think about strategies for making it more accessible for students to use e-guests in online learning from the perspectives of PE and PEOU. Besides, the communication and interaction between the students and invited experts should be exciting and effective, and university faculty should assist in the whole process when necessary.

Finally, in terms of PEOU, how to improve students' SE must be highly considered. Positive and effective teaching stagey must be carefully formed by the teaching staff, which will support students to accomplish their learning intention on their motivation, such as proper encouragement.

Instructors' emphasis on PEOU, PU, PE, and SE of using e-guests in online learning will influence students' attitudes about utilizing e-guests based on the characteristics above. Finally, a positive attitude will affect students' positive BI with social influence toward using e-guests in online learning.

5.3 Limitation and Further Study

For the functional condition of this research, a few limitations are remained and need further investigation. First, the population is one of the limitations in this study. This study focused solely on students who majored in design from public universities in Chongqing, China. However, data collected from different regions and countries could provide more comparative results to understand students' perspectives better. Besides, other theories of technological acceptance, such as TRA and ISS, should be investigated to support the construction of the conceptual framework.

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