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Factors Impacting Satisfaction and Continuance Intention of Art and Design Students to Study with Online Education in Chengdu, China

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Abstract

Purpose: This research aims to investigate factor impacting satisfaction and continuance intention of undergraduates majoring in art and design on online learning of handicrafts in four public universities in Chengdu, China. The key variables are perceived ease of use, perceived usefulness, system quality, service quality, information quality, satisfaction, and continuance intention. **Research design, data, and methodology:** Questionnaires were distributed to 500 target population, and 487 is valid after the data screening. The sampling method involves judgmental, quota and convenience sampling. The main statistical analysis tools are confirmatory factor analysis (CFA) and structural equation modeling (SEM). **Results:** The results support all hypotheses in this study. Perceived ease of use significantly impacts perceived usefulness. System quality, information quality and service quality significantly impact satisfaction. Perceived usefulness has a significant impact on satisfaction and continuance intention. Satisfaction significantly impacts continuance intention. **Conclusions:** Teaching workers must explore online teaching methods that combine perceived ease of use and perceived usefulness, design systematic theoretical and practical courses according to different disciplinary backgrounds, and enhance the relevance and synergy of relevant knowledge and skills in different courses. The continuance intention of online learning can be effectively enhanced by enabling students to master new knowledge and skills in online learning truly.

Keywords: System Quality, Service Quality, Information Quality, Satisfaction, Continuance Intention

JEL Classification Code: E44, F31, F37, G15

1. Introduction

Chinese academic institutions fully embraced online education in 2020 during the COVID-19 epidemic. In June 2021, China had 325 million online education users, 16.78 million fewer than in December 2020. According to CNNIC's analysis of the 48th A Statistical Report on China's Internet Development, online education has essentially covered all levels of the majority of courses and has evolved into one of the primary teaching methods of regular management in higher education during the epidemic, even though the user scale has been somewhat reduced.

Traditional handicraft is a technology with a long history and thorough process. It frequently possesses both

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distinctive regional and national styles. Craft characteristics and abilities are passed down from one generation to the next. The Bauhaus Institute developed the link connecting design and handicraft in the early 20th century, promoted modernist design in higher education, and made handicraft education the focal point of the contemporary design curriculum.

The Chinese Ministries of Culture, Industry, and Information Technology and the Ministry of Finance unveiled the Revitalization Plan of Chinese Traditional Crafts in 2017. The document states: The development of disciplines connected to theoretical and technical research and traditional crafts. Support the establishment of traditional technology majors and courses at accredited colleges and universities and the technical and professional training of traditional technology personnel and academic research staff. We will aid accredited technical schools in strengthening the development of traditional craft majors and preparing skilled workers with high cultural and artistic standards. Since then, several universities have made traditional handicraft one of the courses needed for art design degrees.

However, some issues continue to pique the interest of researchers in the field of design education. For example, only 75, or 5%, of the 1,492 courses offered by Chinese university MOOC platforms are art courses. Of the 1,126 courses offered on another university's CNMOOC platform, only 12 were arts courses or 1% of the overall. Online design education resources account for a small percentage. Simultaneously, there needs to be more assessment of students' satisfaction and desire to continue participating in design practice courses related to craft and skills.

Because online learning is live and interactive, receiving a more traditional education at any time and from any location is possible. Whether in vocational education, Interest learning, or Skill training, it provides students with a better dynamic terrace for engaging learning that is also more suggestive and substantial (Blessinger & Wankel, 2013).

Numerous research has revealed that user satisfaction determines whether users are willing to continue utilizing online education (Mtebe & Raphael, 2018). Typically, learner satisfaction is defined as their individual experience using a particular e-learning platform to acquire knowledge (Gu & Wang, 2015). Based on previous research results and in the context of traditional handicraft design practice, this paper quantitatively analyzes the factors that affect the degree of satisfaction and continuation intention of online design education of Chengdu university students in order to provide some empirical research for the sustainable development of online design education in China.

2. Literature Review

2.1 Perceived Ease of Use

The objective condition is created by how users want to use web applications, and perceived accessibility is considered by participants as a part of the equation in enhanced performance, according to the concept of perceived usefulness (Davis et al., 1989). One software that is believed to be quicker to comprehend than rivals is more likely to be observed by users from the perspective of e-learning, displaying a participant's computational capacity in learning the linked equipment (Lin et al., 2011). Moreover, though PU and PEOU are often environmental motivators for use, manipulator satisfaction indicates the intrinsic drive of usage (Rotchanakitumnuai & Speece, 2009). According to research, PEOU is operated to determine supposing a high-tech advancement is simple for most participants to utilize and to monitor users' comprehension of diver's new tech guidelines as they are using it (Rogers, 1962). Therefore, a proposed hypothesis is developed:

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

2.2 Perceived Usefulness

When a new technology is considered useful, people think it will improve their ability to accomplish particular tasks (Davis, 1993). Similarly, Mathwick et al. (2002) part of the assessment process is worth it as a person's belief in a particular device can enhance their capacity to perform their duties. A student's impression of the value of online education can be determined by looking at the magnitude to which they respect it. This can be used as a motivational factor to accomplish objectives (Lin et al., 2011). The two dimensions of PU are behavior intention for the individual and the institution. The first concerns the financial benefits that a company might obtain from integrating technological advancement. The objectives for the applicant emanate from increased productivity and encouragement of the application of new tech (Robey & Farrow, 1982). Tan and Teo (2000) contend that PU substantially impacts how effectively a society adopts innovations. Thus, the likelihood that the online education paradigm will be adopted rises as the perceived benefit of utilizing online platforms does. According to past studies, learners' desire to continue using e-learning services positively correlates with improved practicality (Roca & Gagne, 2008). Thus, this study proposes that:

H2: Perceived usefulness has a significant impact on satisfaction.

H6: Perceived usefulness has a significant impact on continuance intention.

2.3 System Quality

A crucial aspect of SYQ is conceptualizing an e-learning platform's knowledge delivery and retrieval capabilities (Balog, 2011). The ability and traits of the apparatus to facilitate and improve teaching and learning are referred to as the system quality criteria (Hassanzadeh et al., 2012). The components of a system are assessed using its usability, efficiency, trustworthiness, agility, service delivery, mobility, connectivity, and relevance (Sandjojo & Wahyuningrum, 2015). SYQ is limited by peoples' judgments of an e-learning site's quickness in knowledge dissemination and processing (Balog, 2011). The relevance of IQ is an important cause of people's achievements in several implementation scenarios (Kurt, 2019). Empirical studies have shown that SYQ positively impacts the system and user satisfaction (Hassanzadeh et al., 2012). Hence, this research hypothesizes that:

H3: System quality has a significant impact on satisfaction.

2.4 Information Quality

Information quality is the criteria for the content and presentation of reports provided by online applications (DeLone & McLean, 2003). As Balog (2011) stated, IQ involves how learners feel about the online course resources provided to meet their needs. Many educational institutions strive to improve the correctness, accountability, and effectiveness of their services and products and simplify users' daily operations (Laukkanen, 2007). The proportion to which people enjoy a piece of data to be current, accurate, and encompassing is known as information quality (Kumar et al., 2009). The significance of data features in discovering the viability of computer-based software applications has been widely recognized by academics and researchers (Panigyrakis & Chatzipanagiotou, 2006). IQ describes the level of data that is true, complete, and correct, along with the amount that the subscriber can understand (Cao & Jittawiriyanukoon, 2022). It is known as the desirable attribute of the functions of the network in terms of legitimacy, appropriateness, perspicuity, originality, security, and serviceability (Kurt, 2019). Accordingly, a hypothesis is suggested:

H4: Information quality has a significant impact on satisfaction.

2.5 Service Quality

Service quality is determined by peoples' evaluations of an e-learning program's efficiency in knowledge dissemination and retrieval (Balog, 2011). SEQ is mainly concerned with how frequently manufacturers supply assistance. The component is linked to network performance regarding intelligence, quality, reliability, and availability. SEQ has transformed into e-service productivity brought about by technological innovation, and numerous academics have once again evaluated the importance of its transformation (Al-dweeri et al., 2019). It is defined as the identified executive and technical services provided by operators of assistance programs to support learning (Ritanjali et al., 2019). Offering people distinctive products and services is a crucial strategy for enhancing user pleasure, service quality, and competitive advantage (Santos, 2003). The choice to adopt and accept an information system was evaluated with the addition of a function for service quality (Kettinger & Lee, 1994). The research by Ahn et al. (2007) discovered a connection between PU and SAT and a substantial effect of service performance on PU. The appliers thought that the quality of service directly affected how they used the technology (Cao et al., 2005). Based on the above discussion, a hypothesis is obtained:

H5: Service quality has a significant impact on satisfaction.

2.6 Satisfaction

SAT is a psychological or subjective state that results from a cognitive appraisal of the discrepancy between the effort and the actual (Islam, 2011). Following Theng et al. (1999), SAT is the " source of pleasure with the internet school education for assisting throughout the task's perfect conclusion." According to Liao et al. (2015), SAT is the extent to which a private feel thrilled using a technical skill to achieve a certain goal. It is also the amount to which an individual perceives that employing a product will result in favorable sentiments (Rust & Oliver, 1994). SAT is the most commonly used criterion to evaluate the accuracy of digital education ecosystems (Islam, 2011). Word of mouth is a good sign that an online course process is successful (Chen, 2010). The degree of contact between users and the computer system may be gauged by the user's sensation of enjoyment (Kurt, 2019). DeLone and McLean (2003) highlighted private delight as essential in determining a system's performance. According to other literature, the percentage of trainee gratification can clarify if an online educational architecture is successful (Samarasinghe, 2012). Thereby, a hypothesis is indicated:

H7: Satisfaction has a significant impact on continuance intention.

2.7 Continuance Intention

Continuance Intention is a concept that describes components that promote sustained use of digital services. It is important to comprehend the long-term factors that affect a data program's viability (Bhattacherjee, 2001). This concerns the person's choice to carry on using web

applications. This tendency is noticed following the user's initial engagement with an information system. Scholars and organizations must appreciate what variables affect people's use of digital technologies (Shaikh & Karjaluoto, 2015). Bhattacherjee (2001) attributed it to the habit of a subscriber returning to employ a program following agreeing to it as a continuation intention. In addition, students' perception of the positive impact of online learning courses on learning outcomes will determine their intention to continue using e-learning platforms (Lin et al., 2011). Indeed, quality assessment has become a key component in assessing current learners' willingness to continue accepting e-learning (Ozkan & Koseler, 2009). The anticipatory confirmation model is reliable, especially when external incentives are considered, with strong predictive effectiveness for information technology's continuous use intentions (Van Birgelen et al., 2008).

3. Research Methods and Materials

3.1 Research Framework

The conceptual framework comprises seven variables that may be divided into independent, dependent, and mediator variables, as shown in Figure 1. The independent variable is how the researcher intended to evaluate their outcomes on a specific solution (Hair et al., 2013). An independent variable may influence a related variable, claims Clark-Carter (2018). PEOU, SEQ, IQ, and SEQ were the independent variables in this conceptual framework. PU and SAT are the mediator variables. Some researchers claim that the dependent variable is what they can assess or test to see whether the independent variable's intervention has any effect on it (O'Leary, 2017). The only dependent variable in the conceptual framework is CI, a crucial element of this experiment to investigate undergraduate students' intentions to continue participating in traditional handicraft online courses at Chengdu University, China.

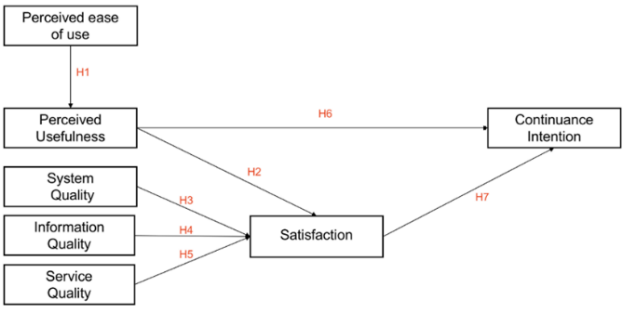

Figure 1: Conceptual Framework

H1: Perceived ease of use has a significant impact on perceived usefulness.
H2: Perceived Usefulness has a significant impact on satisfaction.
H3: System quality has a significant impact on satisfaction.
H4: Information quality has a significant impact on satisfaction.
H5: Service quality has a significant impact on satisfaction.
H6: Perceived usefulness has a significant impact on continuance intention.
H7: Satisfaction has a significant impact on continuance Intention.

3.2 Research Methodology

The quantitative questionnaire is the analytical technique. Identifying the variables influencing undergraduates in the four majors of the four target universities' desire to keep utilizing online design education to acquire traditional craft is done through a questionnaire survey. Screening questions, demographic information, and factors related to seven variables in the conceptual framework make up the questionnaire's three major modules. Cooper and Schindler (2011) stated that screening questions enable investigators to see whether participants possess the education or experience required to complete the survey. Mertens (2015) also notes that questions regarding respondents' personal qualities are frequently asked in demography. Due to the diverse mix of respondents in the sample, it is feasible to evaluate how gender, age, and education impact the truthfulness of direct topics (Peter et al., 2009).

In order to create questions regarding the respondents' demographic traits, the researchers analyzed previous research. These questions revealed specific personally identifiable data about the participants. The final section of the questionnaire has 25 items. Three projects each show PU, PEOU, and SEQ. There are four items: SAT, SYQ, IQ, and CI. Finally, the researchers looked at pertinent variables impacting respondents' intention to continue using a five-point Likert scale—a set of objects known as the Likert scale is offered for research in existing or hypothetical settings. On a metric scale, they were asked to rate how strongly they identified with each proposition (from "Strongly Disagree" to "Strongly Agree").

3.3 Population and Sample Size

Target population is to select undergraduates from four public institutions in Chengdu, China, majoring in product design, environmental design, visual communication design, and art design. According to Hair et al. (2010), the minimum sample size for demanding methodological methods in SEM is 200-500 respondents. As a result, the researcher considers to investigate 500 students as the final sample size from a target population of 3,801 participants.

3.4 Sampling Technique

The sampling method involves judgmental, quota and convenience sampling. Judgmental sampling is to select Undergraduate students from CDU, SCNU, XHU, and CDFAI contributed to the research data. They have completed at least one semester of conventional craft classes online. Finally, the researchers chose samples using quota sampling as shown in Table 1. For convenience sampling, the online questionnaires were distributed to 500 respondents, yielding 487 of qualified data and 13 incorrect data.

Table 1: Sample Units and Sample Size

Target Public Universities	Grade	Total Number of Students	Sample Size
Chengdu University (CDU)	Product Design	278	37
	Visual Communication	289	38
	Environmental Design	245	32
	Art Design	201	26
Sichuan Normal University (SCNU)	Product Design	244	32
	Visual Communication	252	33
	Environmental Design	268	35
	Art Design	213	28
Xihua University (XHU)	Product Design	198	26
	Visual Communication	249	33
	Environmental Design	237	31
	Art Design	222	29
Chengdu Fine Arts Institute (CDFAI)	Product Design	179	24
	Visual Communication	280	37
	Environmental Design	271	36
	Art Design	175	23
Total		**3801**	**500**

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

Males comprised 41.68% of the 487 respondents, while females comprised 58.32%. Respondents from Chengdu University comprised 26.69%, followed by those from Sichuan Normal University comprised 25.87%, Xihua University comprised 23.41%, and Chengdu Fine Arts Institute comprised 24.03%. According to the academic year, 25.05% were first-year students, 24.44% were sophomores, 25.87% were juniors, and 24.64% were seniors. (See Table 2)

Table 2: Demographic Profile

Demographic and General Data (N=487)		Frequency	Percentage
University Belong	Chengdu University	130	26.69%
	Sichuan Normal University	126	25.87%
	Xihua University	114	23.41%
	Chengdu Fine Arts Institute	117	24.03%
Gender	Male	203	41.68%
	Female	284	58.32%
Academic Year	Freshman	122	25.05%
	Sophomore	119	24.44%
	Junior	126	25.87%
	Senior	120	24.64%

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis is a statistical method of SEM that emphasizes measurement scales, connections across observable measurement methods or indicators, and regression coefficients or elements (Timothy & Michael, 2012). The factor loading results and acceptable values for each observed variable demonstrated the research matrix's goodness of fit (Hair et al., 2010). Table 3 displays that the Composite Reliability (CR) was above 0.70, the factor loading values were all above 0.50, and the AVE values were larger than 0.50. (Bagozzi & Yi, 1988; Hulland, 1999).

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

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Factors Loading	CR	AVE
System Quality (SQ)	Cheng (2014)	4	0.729-0.920	0.900	0.694
Information Quality (IQ)	Cheng (2014)	4	0.631-0.908	0.854	0.600
Satisfaction (SAT)	Cheng (2014)	4	0.720-0.842	0.861	0.610
Continuance Intention (CI)	Cheng (2014)	4	0.742-0.882	0.884	0.656
Perceived Ease of Use (PEOU)	Sudin et al. (2022)	3	0.729-0.865	0.827	0.615
Perceived Usefulness (PU)	Liang et al. (2011)	3	0.752-0.782	0.813	0.591
Service Quality (SQ)	Yang et al. (2005)	3	0.7444-0.951	0.913	0.779

Furthermore, all of the applicable thresholds for the absolute fit indicators, such as CMIN/DF, GFI, AGFI, and RMSEA, and the appropriate measures, such as CFI, NFI, and TLI, fulfill the criteria, as shown in Table 4. The outcome is that all of the goodness of fit evaluations utilized in the CFA evaluation was reasonable.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values After Adjustment
CMIN/DF	<3 (Hair et al., 2010)	1.947
GFI	>0.90 (Hair et al., 2010)	0.923
AGFI	>0.80 (Filippini et al., 1998)	0.901
RMSEA	<0.05 (Brown & Cudeck, 1992)	0.044
CFI	>0.90 (Hu & Bentler, 1999)	0.967
NFI	>0.90 (Bentler & Bonett, 1980)	0.934
TLI	>0.90 (Bentler & Bonett, 1980)	0.960
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

Table 5 illustrates the results of the inquiry into and presentation of the discriminant validity. Correct AVE values should be greater than inter-construct correlation values for discriminant validity (Chin, 1998). High factor loadings (above 0.7) and low cross-loadings, as recommended by prior studies (Churchill, 1979), could verify convergent and discriminant validity (under 0.4). Therefore, the discriminant validity was proved using these quantitative metrics.

Table 5: Discriminant Validity

	SYQ	IQ	SAT	CI	PEOU	PU	SEQ
SYQ	**0.833**						
IQ	0.068	**0.775**					
SAT	0.368	0.157	**0.781**				
CI	0.253	0.143	0.413	**0.810**			
PEOU	0.174	0.174	0.208	0.179	**0.784**		
PU	0.256	0.069	0.225	0.218	0.337	**0.769**	
SEQ	0.262	0.140	0.434	0.334	0.246	0.238	**0.883**

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

4.3 Structural Equation Model (SEM)

According to Byrne (2010), the SEM is a statistical means to ascertain structural equation interactions. The proposed model may be examined alongside the analyses. After the CFA review, according to Anderson and Gerbing (1988), SEM technique as the research methodology to test the hypothesis. Ramlall (2017) claims that SEM's two most important components are the coefficient of determination and the research framework. While the structural model assesses the association between endogenous and exogenous factors, the calculation pattern assesses the link between latent and measured variables.

Table 6 reveals that the total values of CMIN/DF, GFI, AGFI, CFI, NFI, TLI, and RMSEA were all over allowable bounds after AMOS adjustment. The results show that the SEM's goodness of fit was proven.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable	Statistical Values Adjustment
CMIN/DF	<3 (Hair et al., 2010)	2.045
GFI	>0.90 (Hair et al., 2010)	0.916
AGFI	>0.80 (Filippini et al., 1998)	0.896
RMSEA	<0.05 (Brown & Cudeck, 1992)	0.046
CFI	>0.90 (Hu & Bentler, 1999)	0.962
NFI	>0.90 (Bentler & Bonett, 1980)	0.928
TLI	>0.90 (Bentler & Bonett, 1980)	0.956
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

4.4 Research Hypothesis Testing Result

The information in Table 7 indicates that PU has a direct and considerable impact on CI, and this overall effect is the most substantial. T-value = 8.031*** and a standardized path coefficient (β) of 0.433.

Secondly, PEOU also directly reflects on PU, path coefficient (β) of 0.416 (t-value of 7.492***). SAT also contributes to CI having a certain influence, path coefficient (β) of 0.220 (t-value of 3.571***).

Additionally, PU, SYQ, IQ and SEQ affect SAT. Their path coefficient (β) was 0.266 (t-value of 5.520***), 0.097 (t-value of 2.062*), 0.368 (t-value of 7.371****), and 0.099 (t-value of 2.004*), respectively. In this quantifiable survey, SAT has the least impact on SYQ.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: PEOU → PU	0.416	7.492***	Supported
H2: PU → SAT	0.266	5.520***	Supported
H3: SYQ → SAT	0.097	2.062*	Supported
H4: IQ → SAT	0.368	7.371***	Supported
H5: SEQ→ SAT	0.099	2.004*	Supported
H6: PU → CI	0.433	8.031***	Supported
H7: SAT → CI	0.220	3.571***	Supported

Note: *** p<0.001, * p<0.05
Source: Created by the author

By research findings, the standardized path coefficient (β) of **H1** is 0.416, demonstrating that PEOU has a substantial and beneficial influence on PU. User accomplishment and PU have a powerful connection, as the survey shows. Therefore, people are more convinced of the worth of an e-learning system the more actively they try to utilize it (Alrousan et al., 2022).

H2 shows that PU is one of the major factors driving SAT, as shown by the standardized path coefficient (β) of 0. 266. Based on several earlier research, the quality of computer

system operations and relative advantage are hindered by the correctness, dependability, practicability, responsiveness, efficiency, and flexibility of data process works (Shih, 2004; Zeithaml & Bitner, 2000).

H3 suggests that, in comparison to other determinants, SYQ has a relatively little impact on SAT scores; the standardized path coefficient (β) is 0.097. SYQ is largely used to determine the validity, correctness, and completeness of data, as well as the user's interpretation of data, which is the major standard of the evaluation system, according to the research of Kurt (2019) and Seta et al. (2018). The quality of the associated information will undoubtedly influence user satisfaction.

H4 proves the impact of IQ on SAT; the standardized path coefficient (β) was 0.368. IQ, as defined by research by Roca et al. (2006), relates to the effectiveness of services available from service suppliers. This is a significant indicator of the uptake of e-learning. How effectively a service matches client expectations often determines its degree of quality.

H6 demonstrates that PU considerably impacted users' CI, and the most important element in this survey, the path coefficient (β), was 0.433. Numerous research findings have found that PU is a wide spectrum of emotions shaped by variables like price, productivity, service delivery, surroundings, and personal attributes. It also maintains how fiercely someone wants to continue engaging in a certain activity (Ojo, 2017; Zeithaml & Bitner, 2000).

Additionally, SAT standardized path coefficient (β) in **H7** is connected with CI, which is 0.220. As said by studies, SAT has a consequence on users' long-term desire for ongoing use of e-learning systems (Mtebe & Raphael, 2018; Roca & Gagne, 2008).

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

The findings of this research hold significant implications for both academic research and practical application. The strong support for the hypotheses highlights the relevance of established technology acceptance models, such as the Technology Acceptance Model (TAM), in the context of online learning in the art and design field. The results demonstrate the applicability of TAM constructs, including perceived ease of use, perceived usefulness, and satisfaction, in explaining students' behavior and intentions in this specific domain.

The observed impact of system quality, information quality, and service quality on satisfaction underscores the multifaceted nature of online learning satisfaction. Educational institutions should prioritize the development of high-quality online learning platforms that not only provide reliable and accurate information but also ensure seamless functionality and user-friendly interfaces. Attention to service quality, including responsiveness to student inquiries and support, can further enhance the overall learning experience.

The substantial influence of perceived usefulness on both satisfaction and continuance intention emphasizes the need for educators to design online courses that effectively communicate the practical value and relevance of the content to students' academic and professional goals. By highlighting the benefits and applicability of the learned skills, educators can contribute to a sense of accomplishment and purpose, thus increasing students' motivation to continue their engagement.

Additionally, the identified link between satisfaction and continuance intention reinforces the importance of fostering a positive learning environment. Institutions should actively seek student feedback, continuously improve course content and delivery, and ensure that technological resources are up-to-date and accessible. By addressing factors that contribute to student satisfaction, universities can increase the likelihood of sustained engagement and meaningful learning outcomes.

In conclusion, this research offers valuable insights into the factors impacting the satisfaction and continuance intention of undergraduates engaging in online handicrafts learning. The findings contribute to the growing body of knowledge on technology acceptance and user behavior in the context of online education. By recognizing the significance of factors such as perceived ease of use, perceived usefulness, system quality, information quality, service quality, and satisfaction, educational institutions can make informed decisions to enhance online learning experiences and promote student engagement and success.

5.2 Recommendation

According to the findings, the higher the perceived utility of online learning, the higher the willingness to continue learning. This suggests that raising students' enthusiasm is the most important part of their willingness to continue learning traditional crafts online. Therefore, the teaching administration department should first improve the teaching quality of traditional crafts-related courses and carry out appropriate teaching design and diversified teaching methods according to different teaching contents, teaching objectives, and technology types.

Secondly, to increase the perceived usability of online design education. Teaching teams must undertake systematic online course design based on various design practice topics, improve the relevance and usefulness of knowledge and skills in various courses, and investigate

teaching techniques that integrate PEOU and PU. To provide students with the opportunity to master information through online education genuinely.

Finally, according to the research data, students' satisfaction with online learning is also affected by the online education platform system, services provided, and related information technology. At present, although schools have conducted training on the use of online teaching technology and teaching methods to help teachers and students become proficient in the use of relevant platforms and technologies, many teachers choose the platforms they commonly use or have a certain number of accumulated students to start courses, which leads to multiple courses in a semester on different platforms. Students have access to and use multiple platforms, different technologies, and different systems simultaneously, increasing the burden of online learning for students and the difficulty of teaching management. However, using a unified teaching platform will also cause system delays and other problems caused by too many students in the same period, seriously affecting the satisfaction with online learning and the willingness to continue using it.

Therefore, the teaching management department of the school can choose the corresponding teaching platform according to the subject characteristics of each college to realize the time division and facilitate the unified management of each college. For example, according to the characteristics of immediacy in the online teaching of design disciplines, education platforms with relatively complete video presentations and interactive design are selected to improve the convenience and effectiveness of design practice and learning support.

5.3 Limitation and Further Study

The empirical research used in this investigation was limited to traditional craft courses offered by four design majors. The research has several limitations due to the restrictions of the course content and major direction. As a result, the influencing elements and importance of SAT and CI gained in this study may differ from other design courses' research. Second, when China completely executed epidemic control, many instructors and students were infected with COVID-19 during this study's data collection. As a result, there may be some discrepancies in the statistics of study satisfaction and continuation intention induced by students' subjective reasons. Finally, this is preliminary research on the goal of online design education craft practical courses to continue. There still needs to be more online design education theories and other practical course data to enhance it. It will continue growing on this foundation, eventually becoming a comprehensive and successful online art design course learning model.

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