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Behavioral Intention of Male Students to Use 5G Internet Network to Use Online Education Platforms in Sichuan, China

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Abstract

Purpose: This study explores the factors influencing male students' behavioral intention to use 5G internet network to use online education platforms in Sichuan, China. The conceptual framework is based on the relationships between perceived ease of use, system quality, information quality, service quality, attitude, social influence, perceived usefulness and behavioral intention. **Research design, data, and methodology:** This study used a questionnaire; the target respondents were 560 male university students from three universities in Sichuan. **Results:** The results of the study showed that attitude was the strongest predictor of behavioral intention to use, followed by social influence and perceived usefulness. Perceived ease of use was the most significant influence on attitude, so the system's ease of use would increase positive feedback from learners to make learning effective. **Conclusions:** Therefore, in the process of selecting and using 5G for online education platforms at the University, it is important to try to generate as much interest in learning as possible, to increase the quality of the system, the quality of the service, and the quality of the information, to improve the ease of use and to create a positive experience so that male students will be better able to use the platform system for continuous learning.

Keywords: Behavioral Intention, System Quality, Information Quality, Online Education Platforms, 5G

JEL Classification Code: E44, F31, F37, G15

1. Introduction

With the mature development and commercial use of 5G technology, the deep integration of emerging information technology and Education is an important driving force for the development of online education platforms. Since the 21st century, according to relevant documents published in China, the development stages of online higher education courses in China are divided into three periods: the period of high-quality courses (2003-2011), the period of high-quality open courses (2011-2015) and the period of online open courses (2015-present) (Zhang et al., 2021).

Online Education has some interchangeably used terms in academia and practice, For example, e-learning, Online Learning, Virtual Education, and Open Education. E-learning and Online Learning emphasize the approach of educational information technology, while Online Education is more widely used in the field of Online Higher Education

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in China. Zhang et al. (2021) Concluded that Online Education is a new Education model based on the Internet technology platform, which enables learners to conduct real-time Online learning through the Internet. Based on the American Society for Training & Development (ASTD) definition, Online Education is a form that relies on the Internet and other relevant information and communication technologies. Based on the American Society for Training & Development (ASTD) definition, Online Education is a form that relies on the Internet and other relevant information and communication technologies.

The online education platform is the carrier of online teaching. It can realize they live online teaching and support students' after-school learning. Zhang et al. (2020) stated that 1998 was the first critical time point in the history of online education platforms, which rose worldwide and expanded rapidly from North America and Europe to Asia. In recent years, online Education in China has benefited from the rapid development of 3G, 4G, and 5G technologies and entered the mobile Internet era. After 2016, smart Education combined with artificial intelligence, big data analysis, cloud computing, and other technologies has become more diversified.

Due to the fierce competition and market segmentation, online learning platforms are mainly divided into two types, one is the commercial online learning platform which mainly aims to provide online courses and charge fees, and the other is the online education platform which mainly aims to carry out online teaching, these aim to help teachers to carry out online teaching. Students can learn online using the diverse learning and rich learning resources the platform tools provide. This study is based on online learning platforms based on web-based teachings, such as Chinese MOOC, DINGDING, Tencent Meeting, Treenity, Rain Classroom, etc.

"5G" is the 5th generation mobile network. Many experts and scholars in the field of Education at home and abroad have discovered the great value of 5G+education. Li and Sun (2019) focused on the impact of 5G technology on online Education from two aspects of education application scenarios and indicator design. China Mobile released the "5G + Smart Education White Paper", explaining the idea of combining teaching, learning, production, research, and investment in smart Education in the 5G environment, and has established a 5G smart education cooperation alliance with more than 40 units. Chinese universities are already using 5G technology in the Education of their students.5G Online Education is not precisely defined in academic circles. The research mentions that 5G online education is based on analyzing college students' use of existing online education platforms based on 5G technology.

In the field of 5G+ smart Education, it will realize the world's first 5G+VRS process class. Sichuan's first 5G education edge cloud platform, with functions such as intelligent network routing, unified authentication, and IoT management, has created applications including 5G private networks, safe campuses, smart playgrounds, high-definition live classrooms, etc., and realizes the aggregation and display of campus education data. In 2020, due to the impact of COVID-19, colleges, and universities in Sichuan Province will successively launch online teaching. Sichuan universities mainly rely on Chao Xing Learning, Chinese MOOC, DINGDING, Tencent Meeting, Trinity, Rain Classroom, and other 5G online education platforms to carry out Education and teaching. 5G online education platforms are conducive to real-time classroom interaction with low-latency live broadcasts, virtual teachers, teacher assistants, and other functions.

In previous studies, gender differences play a role in research on online learning, using participants' interaction patterns to determine whether they participate equally in online learning and communication. Arbaugh (2000) studied the learning and participation of men and women in Internet courses in online courses. Research shows that men's participation has been maintained at a stable and moderate level until the end of the course when men pay more attention to their competition. At the same time, women's participation starts higher, then decreases to a moderate level, and increases at the end of the course. Considering gender differences in usage, this study examines the factors influencing male college students' behavioral intention to use 5G online education platforms in Sichuan Province.

2. Literature Review

2.1 Behavioral Intention

The probabilistic tendency of a person to make a subjective judgment or act is called behavioral intention (Fishbein & Ajzen, 1975). Behavioral intention is defined as the direct signal of the occurrence of certain behaviors or direct precursors (Ryu et al., 2003). Fishbein and Ajzen (1975) pointed out that behavioral intention determines human behavior. Research has shown that behavioral intention has a great relationship with the social environment, cognitive absorption, perceived usefulness, and performance expectance (Maity et al., 2019). Min et al. (2022) acknowledged that the behavioral intention is a significant predictor to the use behavior.

2.2 System Quality

System quality is the overall reflection of function quality (Kim et al., 2004). It covers ease of use, speed of access, and appearance, and it refers to the efficiency of system search,

file transfer, and software and hardware operation. The information systems can use the high-quality function to help users accomplish their goals; people will think the system has high practicability (DeLone & McLean, 1992). Therefore, the system's quality will affect the user's experience, so the following assumptions exist. Accordingly, a hypothesis is proposed:
H1: System quality has a significant influence on perceived usefulness.

2.3 Information Quality

DeLone and McLean (1992) proposed that information quality is the ability to help users achieve goals by utilizing high-quality functions. It reflects the content and form generated by the system, and then they added that information quality includes accuracy, completeness, relevance, and scope (DeLone & McLean, 2003). According to Lee et al. (2009), Information systems can be a perceptive and useful tool if they can constantly update information and content to meet customer needs. Tam and Oliveira (2016) mentioned that users perceive that information systems provide high quality, and they may be more likely to achieve their goals. Hence, the quality of information systems is closely related to the perceived utility of the software. Hence, a hypothesis is set:
H2: Information quality has a significant influence on perceived usefulness.

2.4 Service Quality

Baroudi and Orlikowski (1988) proposed that service quality is a perceived service experience that helps users solve the various problems that arise when using information systems. It is also part of the system to meet the needs and values of the users of the system. Roca et al. (2006) argued that in online learning studies, service quality represents a comprehensive and high-quality personal support service as perceived by learners, including the qualities of teachers and counselors. Lee (2010) believed online service quality has a positive relationship with PU in students' Behavioral Intention to use online education. The following hypotheses are derived in this paper:
H3: Service quality has a significant influence on perceived usefulness.

2.5 Perceived Usefulness

Davis (1989) defined perceived usefulness as using a certain system to improve work efficiency. Gefen et al. (2003) believed that perceived usefulness is the product's usefulness to help complete tasks. Many studies have shown that perceived usefulness positively impacts the technology adoption of attitude in terms of using new technologies (Ghazali et al., 2018), as shown in the following hypothesis:
H4: Perceived usefulness has a significant influence on attitude.

2.6 Perceived Ease of Use

Perceived ease of use is how easy it is for a person to use technology or a new system (Davis, 1989) (Ghazali et al., 2018). Davis (1989) posited that perceived ease of use will indirectly affect individuals' intentions and attitudes toward information systems. The previous studies have illustrated the Influence of perceived ease of use on attitude, so there are the following assumptions. It has been confirmed in many studies that PEOU has a significant effect on perceived usefulness in the application of technology (Kwon et al., 2007). Chung and Tan (2004) believed that in terms of the new technology of website search, the easier users perceive it to use, the larger the perceived usefulness will be. Hence, a hypothesis is developed:
H5: Perceived ease of use has a significant influence on attitude.
H6: Perceived ease of use has a significant influence on perceived usefulness.

2.7 Social Influence

Social influence is mentioned that changes in emotions, ideas, actions, or attitudes resulting from contact with others or other communities (Rashotte, 2007). Social norms can describe social influence (Mead et al., 2014), social factors, and subjective norms (Kalini & Marinkovi, 2019). Existing research suggests that social influence significantly affects a person's behavioral intentions. Maity et al. (2019) divided social influence into two categories, the influence of media and the influence of people around them. Media influence, including advertising and television, impacts an individual's use of a certain technology, while more research has focused on interpersonal influence. Consequently, this research hypothesizes that:
H7: Social influence has a significant influence on behavioral intention.

2.8 Attitude

Fishbein and Ajzen (1975) first introduced Attitude in TRA and defined Attitude as a tendentious response to an object. The findings demonstrate that an individual's reaction to certain positive or negative actions is Attitude (Ajzen, 1991). In behavioral studies, Attitude is the most direct factor affecting behavioral intention (Mpinganjira, 2019), and it determines the will to act (Chatzoglou & Vraimaki, 2009). Many studies have confirmed the relationship between

Attitude and behavioral intention. When studying the behavior of knowledge sharing, they concluded that the more positive an individual's Attitude towards knowledge is, the higher his will be (Chennamaneni et al., 2012). Thereby, a final hypothesis is concluded:

H8: Attitude has a significant influence on behavioral intention.

3. Research Methods and Materials

3.1 Research Framework

In order to construct the theoretical framework for this study, the researcher referred to previous relevant theories and literature and applied them to this topic. The behavioral intention of using 5G for online learning education is based on the core four theories of the technology acceptance model or TAM designed by Davis (1989), the theory of planned behavior (TPB) was proposed by Ajzen (1991), the information systems success model (ISSM) created by DeLone and McLean (1992), as well as the unified theory of acceptance and use of technology (UTAUT) proposed by Venkatesh et al. (2003). The researchers referred to four previous theoretical models. The research framework of this study is proposed in Figure 1.

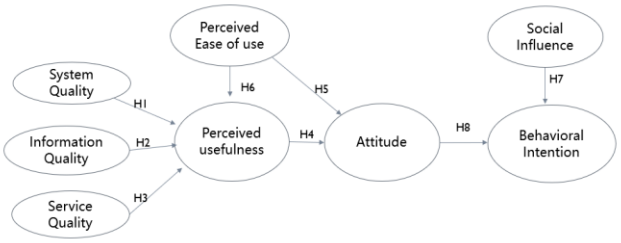

Figure 1: Conceptual Framework

H1: System quality has a significant influence on perceived usefulness.

H2: Information quality has a significant influence on perceived usefulness.

H3: Service quality has a significant influence on perceived usefulness.

H4: Perceived usefulness has a significant influence on attitude.

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

H6: Perceived ease of use has a significant influence on perceived usefulness.

H7: Social influence has a significant influence on behavioral intention.

H8: Attitude has a significant influence on behavioral intention.

3.2 Research Methodology

The target respondents were students from three universities in Sichuan, China, who were over 18 and had acknowledged their use of 5G for online education platforms. The study collected quantitative data from the questionnaire, including screening and demographic questions, and measured variables in the five-point Likert scale from strong disagreement (1) to strong agreement (5). For pilot testing, the expert rating of the index of the item– objective congruence (IOC) and pilot test for 30 respondents has been tested, and reliability was tested using Cronbach's alpha approach.

Students from Sichuan University, Southwest Jiaotong University, and Xihua University who had used 5G for online education platforms were the recipients of research deployed to those Sichuan campuses. After the validity and reliability test, the questionnaire was distributed to target respondents, which resulted in 560 accepted male responses.

The validity and reliability were measured and tested using confirmatory factor analysis. The results of discriminant validity, convergent validity, composite reliability, Cronbach's alpha reliability, factor loading, and average variance extracted analysis were used to assess the validity and reliability of the conceptual study model. The eight presented hypotheses and study questions were all supported by SEM analysis and exploration of the elements impacting college students' behavioral intentions to utilize 5G for online learning.

3.3 Population and Sample Size

The target population for the study was College male students who have experienced using 5G for online education platforms in Sichuan. This study chooses male group as it can convey the preference and insights in particular gender group. The researcher chooses the top 3 universities regarding the number of students doing the research. The sample size of the structural equation model suggested that at least 444 respondents should participate in the study (Soper, n.d.). Six hundred fifty respondents participated in the study through an online questionnaire, and 560 valid questionnaires were used for this study after data screening.

3.4 Sampling Technique

The population of this study is male college students in Sichuan. In order to make the sample more representative, the sampling method of judgmental sampling is adopted. In Table 1, the researcher used a stratified sampling method to calculate a proportional sample of male students from the three schools, required a minimum of 500 valid

questionnaires. For convenience sampling, the study was completed by distributing the online questionnaires.

Table 1: Sample Units and Sample Size

University	Population	Proportional Sample Size
Sichuan University	34092	193
Southwest Jiaotong University	32830	186
Xihua University	21420	121
Total	**88342**	**500**

Source: Constructed by author

4. Results and Discussion

4.1 Demographic Information

In this study, quantitative analysis based on a questionnaire was used to construct a structural equation model, and statistical analysis software SPSS Statistics 23.0 and AMOS 26.0 were used for data analysis. The researcher received 560 valid questionnaires, as shown in Table 2. The descriptive analysis included information on the age, gender, and university of the respondents, which was similar across the three universities, with most respondents between the ages of 18 and 30.

Table 2: Demographic Profile

Demographic and General Data (N=560)		Frequency	Percentage
Age stage	18-30	389	69.46
	30 and over	171	30.54
University	Sichuan University	193	34.46
	Southwest Jiaotong	186	33.21
	University		
	Xihua University	181	32.33

Source: Constructed by author

4.2 Confirmatory Factor Analysis (CFA)

Confirmatory factor analysis is a research method used to determine whether the correspondence between a measurement factor and a measurement term is consistent with the researcher's predictions. There are two types of validity, convergent validity, and discriminant validity, often used to measure the validity of a construct. The test's reliability indicator, Cronbach's alpha, factor loading, CR, and AVE may all be used to evaluate convergent validity.

Cronbach's alpha values in Table 3 are higher than 0.8, indicating that the items' internal consistency is trustworthy, with Cronbach's alpha value for social influence being 0.937. This indicates that the reliability of the items is excellent. Tabachnick and Fidell (2007) suggest that a value of factor loading is greater than 0.71, meaning that it is highly desirable when the factor can explain 50% of the variation in the observed variable. Construct reliability (CR) values above 0.6 indicate the model's high internal consistency (Wu, 2010). The average variance extracted from latent variables was greater than 0.5, which means that the internal quality of the model is good (Fornell & Larcker, 1981). As shown in Table 6, the CR for the first data set (male) ranged from 0.820 to 0.937, the AVE values ranged from 0.533 to 0.788, and the variable with the highest internal consistency of the composite reliability was a social influence.

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

Variables	Source of Questionnaire (Measurement Indicator)	No. of Item	Cronbach's Alpha	Factors Loading	CR	AVE
Behavioral Intention (BI)	Fishbein and Ajzen (1975)	4	0.849	0.744-0.779	0.849	0.584
Attitude (ATT)	Fishbein and Ajzen (1975)	4	0.858	0.758-0.793	0.858	0.602
Social Influence (SI)	Rashotte (2007)	4	0.937	0.875-0.899	0.937	0.788
Perceived Ease of Use (PEOU)	Davis (1989)	4	0.831	0.719-0.785	0.832	0.553
Perceived Usefulness (PU)	Davis (1989)	4	0.864	0.771-0.803	0.865	0.616
System Quality (SQ)	Kim et al. (2004)	4	0.820	0.702-0.757	0.820	0.533
Information Quality (IQ)	DeLone and McLean (1992)	4	0.846	0.738-0.785	0.847	0.580
Service Quality (SVQ)	Roca et al. (2006)	3	0.848	0.788-0.837	0.848	0.651

In addition, GFI, AGFI, NFI, CFI, TLI, and RMSEA are used as indicators for model fit in CFA testing. As shown in Table 4, the CMIN/DF = 1.072, GFI = 0.953, AGFI = 0.942, NFI = 0.953, CFI = 0.997, TLI = 0.996, and RMSEA = 0.011 are within acceptable limits.

Table 4: Goodness of Fit for Measurement Model

Fit Index	Acceptable Criteria	Statistical Values
CMIN/df	< 5.00 (Al-Mamary et al., 2015; Awang, 2012)	435.294/406 or 1.072
GFI	≥0.85 (Sica & Ghisi, 2007)	0.953
AGFI	≥0.80 (Sica & Ghisi, 2007)	0.942
NFI	≥ 0.80 (Wu & Wang, 2006)	0.953
CFI	≥ 0.80 (Bentler, 1990)	0.997
TLI	≥ 0.80 (Sharma et al., 2005)	0.996
RMSEA	< 0.08 (Pedroso et al., 2016)	0.011
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, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker–Lewis index, and RMSEA = Root mean square error of approximation.

It is guaranteed when the square root of the AVE of each factor on the diagonal is greater than the correlation coefficient between that factor and the other factors (Fornell & Larcker, 1981). As shown in Table 5, the discriminant validity of a variable is confirmed when the square root of the AVE of each factor on the diagonal is greater than the correlation coefficient between that factor and the other factors.

Table 5: Discriminant Validity

	BI	ATT	SI	PEOU	PU	SQ	IQ	SVQ
BI	**0.764**							
ATT	0.349	**0.776**						
SI	0.275	0.277	**0.888**					
PEOU	0.267	0.299	0.198	**0.744**				
PU	0.248	0.257	0.169	0.259	**0.785**			
SQ	0.211	0.367	0.176	0.392	0.227	**0.730**		
IQ	0.251	0.317	0.286	0.332	0.232	0.302	**0.762**	
SVQ	0.392	0.378	0.354	0.258	0.243	0.230	0.275	**0.807**

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

4.3 Structural Equation Model (SEM)

Structural models show pathways or relationships between potential variables, which can be directly or indirectly acting relationships. The goodness of fit indices for the Structural Equation Model (SEM) is measured as demonstrated in Table 8. The researcher assessed the fit of the model and compared the acceptable fit values of Table 8 with the statistical values of the indicators, CMIN/DF=2.213, GFI=0.891, AGFI=0.873, NFI=0.897, CFI=0.941, TLI=0.935, RMSEA=0.047 are the statistical values of the indicators and the fitted indicators The results show that the model fits well.

Table 6: Goodness of Fit for Structural Model

Index	Acceptable Criteria	Statistical Values
CMIN/df	< 5.00 (Al-Mamary et al., 2015; Awang, 2012)	944.907/427 or 2.213
GFI	≥0.85 (Sica & Ghisi, 2007)	0.891
AGFI	≥0.80 (Sica & Ghisi, 2007)	0.873
NFI	≥ 0.80 (Wu & Wang, 2006)	0.897
CFI	≥ 0.80 (Bentler, 1990)	0.941
TLI	≥ 0.80 (Sharma et al., 2005)	0.935
RMSEA	< 0.08 (Pedroso et al., 2016)	0.047
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, NFI = Normed fit index, CFI = Comparative fit index, TLI = Tucker–Lewis index, and RMSEA = Root mean square error of approximation.

4.4 Research Hypothesis Testing Result

The degree of correlation between the independent and dependent variables suggested in the hypotheses was determined using regression or standardized path coefficients. According to Table 7, eight offered hypotheses for received support. With the behavioral intention to use 5G for online education is strongly influenced by attitude, followed by social influence. Attitude was significantly driven by perceived ease of use and usefulness, respectively, which substantially influenced attitude.

Table 7: Hypothesis Results of the Structural Equation Modeling

Hypothesis	(β)	t-Value	Result
H1: SQ→PU	0.137	2.786***	Supported
H2: IQ→PU	0.140	2.913***	Supported
H3: SVQ→PU	0.196	4.036***	Supported
H4: PU→ATT	0.243	5.016***	Supported
H5: PEOU→ATT	0.283	5.667***	Supported
H6: PEOU→PU	0.156	3.189***	Supported
H7: SI→BI	0.213	4.715***	Supported
H8: ATT→BI	0.365	7.334***	Supported

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

Results from Table 7, the standardized path coefficient of **H1** is 0.137, which is congruent with the findings of Wixom and Todd (2005). So, the features of 5G for online education, such as controllability or flexibility, are important for students to consider and accept the system as a useful tool. **H2** has a standardized path coefficient of 0.140 and a t-value of 2.913. This study perceived an effect of information quality on perceived usefulness, which is in line with Zhou (2011), DeLone and McLean (2003), and Elmorshidy (2018). The standardized path coefficient for **H3** is 0.196, and the t-value is 4.036, which is consistent with the findings of Cenfetelli et al. (2005), Ahn et al. (2007), Choi et al. (2015), the greatest influence on perceived usefulness was service quality. The standardized path coefficient for **H4** is 0.243, and the t-value is 5.016. The more useful the student perceives the 5G for online education to be, the greater the likelihood of learning it (Bailey et al., 2017; Ghazali et al., 2018). The standardized path for **H5** is 0.283, with a t-value of 5.667. The influence of attitudes towards 5 online education use comes mainly from perceived ease of use, followed by perceived usefulness. Ease of use is also a key factor influencing attitudes toward 5G online education use (Mohammadi, 2015; Wang & Liao, 2007). The standardized path

coefficient for **H6** is 0.156, and the t value is 3.189. It is concluded that perceived ease of use has a significant effect on perceived usefulness (Chung & Tan, 2004; Kwon et al., 2007). The standardized path coefficient for **H7** is 0.213, and the t value is 4.715. Venkatesh et al. (2012), Maity et al. (2019), and Tsu Wei et al. (2009) argued that peers, teachers, and society influence students and that they are stimulated or influenced to use 5G for online education. In the hypothesis that attitude significantly influences the behavioral intention of 5G for online education, the standardized path coefficient **H8** is 0.365, and the t value is 7.334. It shows that attitude has the most influence on behavioral intention. This is consistent with the results of Dabholkar and Bagozzi (2002), Holsapple and Wu (2008), and Chennamaneni et al. (2012).

5. Conclusion and Recommendation

5.1 Conclusion and Discussion

This study provides a comprehensive analysis of the important factors that influence the behavioral intention of male university students in Sichuan Province to use the 5G for online education. The investigators propose eight hypotheses around the research question to explore whether Perceived ease of use (PEOU), system quality (SQ), information quality (IQ), service quality (SVQ), attitude, social influence (SI), and perceived usefulness (PU) have a direct or indirect effect on the behavioral intention of 5GOEP use. The study adopted four core theories and four theoretical frameworks of previous studies. The study's target respondents were male students from three universities in Sichuan, China, who were over 18 and had acknowledged their use of 5G for online education. In order to make the sample more representative, this study adopts the multi-stage sampling method. The researchers issued nearly 650 questionnaires online and received 560 valid questionnaires. They were sent to undergraduates from three universities in Sichuan who had used 5G for online education, namely Sichuan University, Southwest Jiaotong University, and Xihua University. After the data were collected, CFA was used to measure and test the reliability and validity of the study model. The validity and reliability of the conceptual study model were evaluated using the outcomes of discriminant validity and convergent validity, including composite reliability, Cronbach's alpha reliability, factor loading, and average variance extracted analysis. Using SEM to analyze and explore the factors influencing male college students' behavioral intentions to use 5GOEP proved the eight proposed hypotheses and research questions, which were supported.

The results of this study can be summarized in three main findings. First, attitudes were the strongest predictor of behavioral intention to use compared to social influence. Therefore, building perceptions of the usefulness and advantages of the platform system is crucial for male students to motivate behavioral topics. However, the degree of social influence of the system is also considered. Furthermore, perceived usefulness and ease of use significantly impact attitudes, with perceived ease of use being the strongest influence on attitudes. The ease of use of the system increases positive feedback from learners so that learning is effective. Lee et al. (2007) and Camarero et al. (2010), in their study of the impact of online learning tools, all made this point when examining the impact of perceived ease of use of learning tools on student learning. Finally, in terms of perceived usefulness analysis, university males considered system quality to significantly impact perceived usefulness, with the others being perceived ease of use, information quality, and service quality in that order.

5.2 Recommendation

The researchers identified key factors affecting the perceived ease of use, system quality, information quality, service quality, attitude, social influence, and perceived usefulness of the 5G for online education platforms for behavioral intention among male students from three major universities in Sichuan, information quality, service quality, attitude, social influence, and perceived usefulness. Intention to use 5G for online education platforms in university, the above key factors must be developed and promoted. This suggests that university students will use the Online Education Platforms system if they perceive it to be a way to improve their performance and to be easy to use, so the developers of the Platforms, administrators, and teachers of universities or higher education institutions should ensure the quality of the system when using 5G for online learning. 5G for online education platforms should be operational, flexible, responsive, and accurate, with full platform system testing and high-quality technical assistance prior to use, and adequate training to raise the standard of platform managers and system development engineers to help teachers and learners to deliver more effective online teaching and learning. While ensuring quality, promoting the system's usefulness and ease of use to students through self-publishing or other networks creates a positive perception of the system. Platform systems with high teacher and peer ratings and social influence will stimulate the likelihood of students using 5G for online education platforms.

5.3 Limitation and Further Study

This study has certain limitations and suggestions for further research. Firstly, this study is based on universities, and only three universities in Sichuan Province were selected, so the scope and sample size of the study is limited. Secondly, the platform of this study is only based on 5G for online education platforms, and now 5G technology has yet to be widely used on a large scale. Further research could be on massive open online courses (MOOCs) after all 5G technology is used, E-Learning or 5G for online learning for commercial organizations. Finally, this study investigated male students, and further research could include teachers as respondents to understand the factors that influence their behavioral intentions toward using 5G for online education platforms.

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