Factors Impacting Online Teaching Behavioral Intention on Vocational College in Nanchang, China

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Abstract

This study aims to understand what factors influence vocational college teachers in Nanchang,china,to choose online teaching.This text says that the conceptual framework was taken from three different theories: the extended Unified Theory of Acceptance and Use of Technology (UTAUT 2),the Technology Acceptance Model (TAM), and the Theory of Planned Behavior(TPB).These theories suggest that there is a connection between Attitude(AT), Performance Expectancy (PE), Effort Expectancy (EE), Social Influence (SI), Facilitating Conditions (FC),and Behavioral intention(BI).The research employed a Cronbach's Alpha in a pilot test (n=502) for reliability. 502 valid responses from teachers at JiangXi College of Science and Technology were analyzed by the multiple linear regression to verify the significant relationship between variables. This research revealed that attitude, performance expectancy, effort expectancy, social influence, facilitating conditions impacted on behavioral intention in the context of JiangXi, China.

Keywords: Online Teaching, Attitude, Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavioral intention

Introduction

Jiangxi Vocational College of Science and Technology is a top vocational college in Nanchang, Jiangxi province, with more than 500 full-time teachers and more than 15,000 students. College campus environment is beautiful, with modern online teaching equipment, college and telecommunications operators to strengthen the quality of college network, make the college network speed, stability and strengthen the campus network coverage, to ensure the maximum extent of teachers and students online class network quality.The population sample in this study is full-time teachers who have taken online courses at Jiangxi Vocational College of Science and technology in Nanchang, China.

With the significance of online teaching amid the emergency, this think about looks for to explore the components affecting college teachers' state of mind and behavioral intention towards online teaching platform. The results and recommendations of this study aim to benefits the education institutes, academicians, researchers, and learners in coping with the transition and adopting effective strategies for valuable usage of online teaching platform.

Objective

The following research objectives formed the basis of the current study. They were derived to sequentially contribute data for the development of the proposed model.

1. To investigate the significant impact from attitude toward behavioral intention.

2. To investigate the significant impact from performance expectancy toward behavioral intention.

3. To investigate the significant impact from effort expectancy toward behavioral intention.

4. To investigate the significant impact from social influence toward behavioral intention.

5. To investigate the significant impact from facilitating conditions toward behavioral intention.

Literature Review

This study wants to understand what factors of attitude,performance expectancy, effort expectancy,social influence,facilitating conditions affect how college teachers' behavioral intention in Nanchang,China, think and feel about using online teaching platform.The framework combines three research theories called the Technology Acceptance Model (TAM), the Theory of Planned Behavior (TPB), and the extended Unified theory of acceptance and use of technology (UTAUT2).

Attitude is defined as our understanding of online teaching behavior all due to their own preferences for online teaching behavior and their own understanding of online teaching behavior depth. Attitudes impact teachers' preparation to memorize modern advances and their utilize in education and manage their eagerness to coordinated them into their hones. But these are as it were done when coming about from an composed encounter (Breckler & Wiggins, 1989) that rise from collaboration with the objects and in particular school settings (Raygan & Moradkhani, 2020).

sees performance expectancy as the use of specific information technologies to get teacher to do a good teach and make the whole thing more efficient.Performance expectancy refer to teachers' belief that online teaching can optimize their teaching experience and influence the course of their future intentions as well as effort expectancy to anticipate (Venkatesh et al., 2003). The results make sense because teachers' opinions about using new technology in teaching are important,especially when they can decide for themselves.People think that online teaching is more convenient and costs less money than other services (PK et al.,2020; David-West et al., 2018).

Effort expectancy is understood to be a teacher's perception of the difficulty or ease of application of the system (Jebril et al., 2021). When teachers perceive that online teaching is easy to use and effortless to attain the needed performance, they are more likely to be satisfied.Effort expectancy is ease of use associated with this technology is understood as a core factor, particularly in relation to the lack of comprehensive understanding that network technologies has in our interactions with each other (Bussel et al., 2022). This is an important factor affecting teachers when they first start using technology.

In its most general conceptualization,Social influence refers to the impact of some of our previous actions on the subsequent actions of others who recognize these actions. In a big country like China, where people come from different backgrounds, some may want to make sure others approve before using online teaching. Based on what we talked about

before, the writers think that people like family, friends, coworkers, and others can affect whether a teacher wants to do online teaching. This study stated that online teaching is becoming more common in colleges. Therefore, the study suggests that there is a link between how others influence us and the use of online teaching to enhance education (Abeeku, 2023).

Therefore, to determine teachers' decision to use a technology, it is important to assess the effect of facilitating conditions—the availability of technical infrastructure and support in the use of an online teaching platform (Venkatesh et al., 2003). In the context of online teaching behavior, facilitating conditions pertain to availability of resources such as mobile network coverage, affordability of mobile devices and support from service providers (David-West et al., 2018). In this context, facilitating conditions for online teaching relate to the availability of computing platforms, data management services, application software, physical facilities support, IT management and service platforms enabled by new technology tools (Abeeku,2023).

Behavioral Intention is defined as a teacher's commitment in intention to use online teaching platform (Ain et al., 2015). For instance, in investigating the use of online teaching platform, Chopdar et al. (2018) show that behavioral intention has a significant effect on actual use.Consistent with underlying views, behavioral intention explains the antecedents of teachers' online teaching towards a specific behaviour (Abeeku, 2023). Accordingly, there has been substantial evidence that behavioral intentions affect technology acceptance in online teaching system platform (Deniswara et al., 2021; Abeeku, 2023).

Conceptual Framework and Methodology

The researcher presented conceptual framework to enlighten the factors impacting the teachers' behavioral intention to use UTAUT2 in higher college of JiangXi, China.Three major theories have attempted to account for an individual's teacher sharing intentions and actual teacher sharing behavior within an organization: the technology acceptance model (Davis et al., 1989) and the theory of planned behavior (Ajzen, 1991), and the extended unified theory of acceptance and use of technology (Venkatesh et al., 2012). All three theoretical frameworks mentioned above supported and developed conceptual framework in Figure 1.
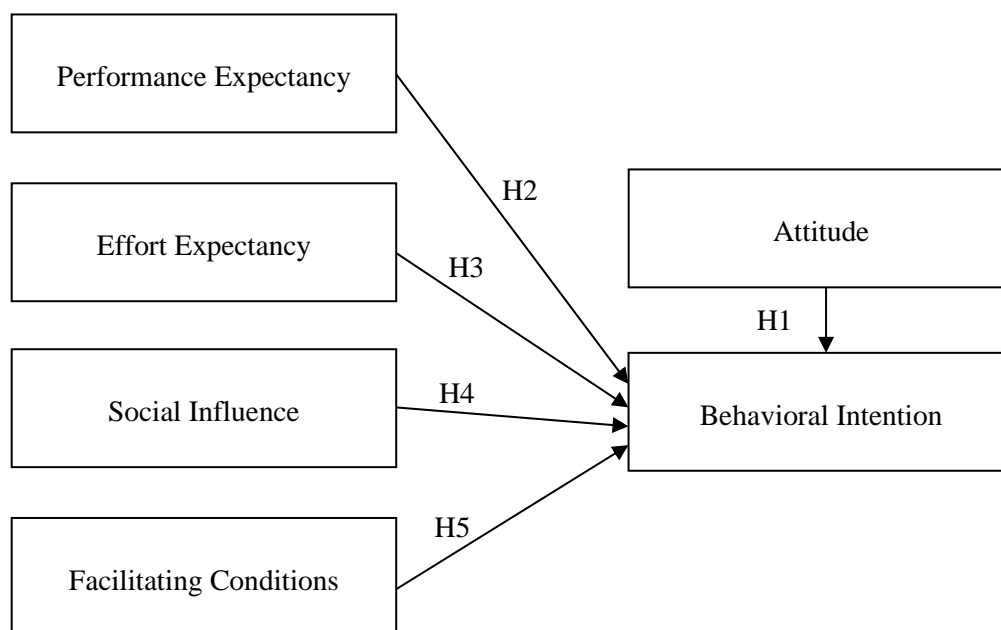
Figure 1: Conceptual Framework

Therefore, the hypothesis is:

H1: Attitude has a significant impact on behavioral intention.

H2: Performance expectancy has a significant impact on behavioral intention.

H3: Effort expectancy has a significant impact on behavioral intention.

H4: Social influence has a significant impact on behavioral intention.

H5: Facilitating conditions has a significant impact on behavioral intention.

Research Methodology

Empirical Results and Data Analysis

Within the proposition, investigate populace from three diverse offices of the college of JVC, such as the ideological and political department,the public foundation department, the nursing college. There is 171 teachers from the ideological and political department, 153 teachers from the public foundation department,178 teachers from the nursing college. Survey questionnaire is sent through Wechat group, to add up to 502 teachers,these teachers can be seen as the inquire about populace of this investigate.Hair et al. (2010) recommended that the measure of test with between 30 to 500 is satisfactory for most of the investigate. At preparatory diagnosis stage, the test estimate for Multiple Liner Regression (MLR) testing is 502.

Table 1: Summary of the major categories of behavioral intention

NO. 1	Major Category	key Words
1	Attitude	positive or negative perception,to be the first and most important factor, self-evaluation
2	Performance Expectancy	to be more efficient in our work,accomplish tasks or improve the effectiveness,help promote an education
3	Effort Expectancy	perception of the difficulty or ease of application,the degree of difficulty,how receptive they are to it
4	Social Influence	some extent that other key players,a strategy,influence one's actions and decisions,is influenced by their friends or instructors' belief
5	Facilitation Conditions	in existence to support use of the system
6	Behavioral Intention	to perform his or her hidden behavior,will perform or not perform a particular action,people's action

As for the quantitative data analysis, jamovi measurement was conducted to analyze the data from questionnaire. Descriptive analysis was actualized to analyze the fundamental data of questionnaire comes about by utilizing the criteria for mean scale interpretation.

Table 2: Level of behavioral intention

Behavioral intention	Mean	SD	Interpretation
Attitude	3.34	0.644	High
Performance expectancy	3.34	0.685	High
Effort expectancy	3.37	0.647	High
Social influence	3.26	0.651	High
Facilitation conditions	3.39	0.628	High
Behavioral intention	3.41	0.638	High

Table 3: Type of participation

	Number	**Percentage**
Ideological and Political Department	171	34%
Ministry of public infrastructure	153	30%
School of Nursing	178	36%
Total	**502**	**100%**

Multiple linear regression was utilized to the speculations. Since both the free factors (five measurements of UTAUT2) and subordinate factors (behavioral intention) are ceaseless factors, the investigation can be conducted by utilizing multiple linear regression methods.

Table 4: The multiple linear results of the five independent variables on behavioral intention Model Fit Measures

Overall Model Test						
Model	**R**	**R2**	**F**	**df1**	**df2**	**P**
1	0.930	0.865	638	5	496	<.001

Model Coefficients - BI					
Predictor	**Estimate**	**SE**	**t**	**P**	**Stand. Estimate**
Intercept	0.0914	0.0605	1.51	0.131	
AT	0.1540	0.0357	4.31	<.001	0.155
PE	-0.1198	0.0370	-3.24	0.001	-0.129
EE	0.1577	0.0401	3.93	<.001	0.160
SI	0.1153	0.0297	3.88	<.001	0.118
FC	0.6770	0.0372	18.18	<.001	0.666

Tables 4 appears the relationship of independent variables and behavioral intention at determination stages. By utilizing jamovi to perform multiple regression analysis, the centrality test appeared that the p-values were less than 0.05, demonstrating that the five measurements of the independent variable had critical impacts on the dependent variable. By watching the standardized regression coefficients, the standardized regression coefficients of attitude, performance expectancy,effort expectancy, social influence and facilitating conditions measurements (<.001、0.001、<.001、<.001、<.001) all were lower compared to the dimension(P<0.05), which all reflects that the primary five measurements had a better affect on behavioral intention from a statistical viewpoint.

Therefore, H1: Attitude has a significant impact on behavioral intention. H2: Performance expectancy has a significant impact on behavioral intention. H3 : Effort expectancy has a significant impact on behavioral intention. H4: Social influence has a significant impact on behavioral intention. H5:Facilitating conditions has a significant impact on behavioral intention.The five are upheld by the multiple linear regression (MLR) comes about.

Discussion

This study focuses on the relationship and impact of behavioral intention.It shows that the most important need on online teaching of college teachers is stable needs, followed by development factors, and finally respect needs. In recent years, China's online teaching situation has become more and more harmony. Epidemic are rising all the way. These changes in external conditions all affect the online teaching for college teachers.

Through multiple linear regression analysis, attitude has a very significant impact on behavioral intention. In observation, interview and group mentoring, researchers found that the teachers who have had successful experience or the characters similar to themselves in successful cases, often have a strong sense of attitude. Attitude will become stronger with the accumulation

of successful experience and establish more positive behavioral intention. The more specific the goal setting, the stronger the feasibility, the more paths and the firmer the implementation are, the more conducive to the improvement of performance expectancy and effort expectancy for individuals. Let college teachers know when to change the plan and when to revise the goal. These efforts have made significant changes in the quantitative and qualitative research after strategic plan.

Social influence always plays an important role in the process of completing the courses.Compared with social influence, the improvement of the other four dimensions tends to be improved by specific and operable activities, and the effect of short-term strategic plan is more obvious, while social influence is a strategy by which one persuades someone to influence one's actions and decisions, and the effect of short-term strategic plan is strong.This is supported by the closest people such as family, friends, and the work environment.

Facilitating Conditions is defined as the degree a user believes that the online teaching platform is supported by the college for educational purpose, including technical assistance. The more specific the goal setting, the stronger the feasibility, the more paths and the firmer the implementation are.Let college teachers know when to change the plan and when to revise the goal. These efforts have made significant changes in the quantitative and qualitative research.

Suggestion

1. Suggestions for Application

1.1 The members of Ban Chiang Khruea pottery group, Mueang district, Sakon Nakhon province could make use of the data recording the incomes-expenses for an analysis and planning in order to find the real cost and set the way to lower the cost.

1.2 The members of Ban Chiang Khruea pottery group, Mueang district, Sakon Nakhon province could make use of the data on the sale prices to set higher sale prices.

1.3 The members of Ban Chiang Khruea pottery group, Mueang district, Sakon Nakhon province could forward the data on the personnel problems to the local administration organization to run activities for career promotion for the new generation.

1.4 The members of Ban Chiang Khruea pottery group, Mueang district, Sakon Nakhon province could take the data for planning to look for raw materials such as soil, firewood and sand which are currently rare because of their decreases, but the prices are higher. Due to several causes and factors, the soil and sand are currently adequate for production,

but the prices may be higher. For the firewood for burning, its price is also higher since it has to be brought from other sources far away. The government sector also limits the area for cutting small trees.

2. Suggestions for future study

2.1 A study should be made in other areas or production of similarity in order to analyze and compare good points, weak points and the those should be improved,

2.2 The member group of the pottery should adjust themselves up to the modern age both in production and sale channel through online media but maintaining the local identity.

2.3 Entrepreneurs should develop the pottery to have better quality and have more forms of production to respond to the needs and wants of groups of customers.

2.4 Entrepreneurs should promote their descendants in the community to have interest in pottery and develop the existing personnel to become important labor force for production in the future.

Conclusion

This study focuses on the relationship between attitude,performance expectancy,effort expectancy,social influence,facilitation conditions and behavioral intention. Through the correlation analysis and after regression analysis, there is a certain relationship between attitude, performance expectancy, effort expectancy,social influence, facilitation conditions and behavioral intention of College teachers.

With the rapid development of social economy and the acceleration of knowledge update, the society puts forward higher requirements for the quality of teachers. For substantial college teacher, the success rate of initial education is high. From the perspective of improving online teaching behavioral intention, we should actively guide college teachers to make good online teaching planning and reasonably adjust their online teaching behavioral intention.

Attitude helps to enhance teachers' online teaching motivation, so that teachers can obtain successful experience, which is the most important source of attitude. Teachers with lack performance expectancy often exaggerate difficulties in online teaching and life and underestimate their abilities. In teaching life, adhere to their own goals. The overall teaching motivation level of teachers in Chinese non-government college is low, which requires us to set goals and tasks that are easy to complete, so that they can improve their effort expectancy, and then have positive attribution to the present and the future. When encountering setbacks, social influence allows us to withstand blows and pressure. Therefore, teachers in non-government college need to determine their teaching ideals and goals as soon as possible, so as to improve their ability to overcome difficulties and achieve facilitation conditions .

Due to the limitation of research conditions and personal situation, it is difficult to obtain the participants resources to a certain extent,unbalanced which will impact on the research results.

Since the theory of online teaching behavioral intention was put forward in the past few years, it has highlighted the uniqueness, importance and superiority in college education. And it is still in its infancy in vocational education, and there are still many contents to be further studied.

Scholars in China have conducted research on online teaching behavioral intention, but how to grasp college policies,invest in hardware facilities,and maintain online teaching platforms by software companies have become the focus and difficulty in solving this problem.

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