PalArch's Journal of Archaeology of Egypt / Egyptology

EMPIRICAL INVESTIGATION OF STUDENTS' ACTUAL USE TOWARDS LEARNING ENGLISH ONLINE WITH THAILAND'S VIRTUAL SCHOOL ONLINE PLATFORM: EXTENDED UTAUT FRAMEWORK

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Parlakorn Kornpitack, Sudaporn Sawmong. Empirical Investigation Of Students' Actual Use Towards Learning English Online With Thailand's Virtual School Online Platform: Extended Utaut Framework-- Palarch's Journal Of Archaeology Of Egypt/Egyptology 17(3),3146-3158. ISSN 1567-214x

Key Words:English, Online Learning Platform, Virtual School Online, Thailand

ABSTRACT

This study empirically tested the model to evaluate the factors that affect the use of learning English with Virtual School OnlinePlatform among Thai High School students. The study explored the behavioral intention and actual use of online learning platform from the perspective of High school students, applying the UTAUT model, with addition to the previous education success construct. The study was cross-sectional from the data corrected from 1,044 respondents. The analysis was conducted using structural equation modeling. The results revealed that: (1) behavioral intention (BI) was positively and significantly influenced by performance expectancy, social influence, facilitating conditions, and previous education success; (2) actual use was found to be positively, and significantly influenced by behavioral intention to use; (3) the actual use was found to be positively and significantly influenced indirectly through behavioral intention by performance expectancy, social influence, facilitating conditions, and previous education performance; (4) effort expectancy was found to have a negative non-significant influence on behavioral intention, and indirectly on actual use. The findings are relevant towards the policy makers in the Thailand education system, as they make effort towards improving the English education learning among high school students.

INTRODUCTION

With the recent advancement in technology and increase of use of internet, the overall learning system and the learning practices have significantly

revolutionized. Students are not only able to go to schools and listen to their teachers, but also, they can attend classes online, facilitated by the online learning platforms. This new method of learning has been considered more efficient by researchers(Hamidi, Chavoshi, 2018; Hamidi, Jahanshaheefard, 2019; Kim, Lee, Rha, 2017).As it addresses the limitations associated with the previous classroom learning system. Everyone can access learning materials without time or geographical limitations. However, the effectiveness and success of online learning platforms depends on the users' perception as well as their knowledge and skills in using computers. These factors have been considered to have significant effects on the initial acceptance and subsequent use of the online learning technology, as well as the future behavior regarding the web-based learning systems.

With the increase in the internationalization of education, the content and language, integrated learning (CLIL) has experienced a major shift towards concept of English Medium Instruction (EMI). This has majorly been experienced by those developing countries that want to be a part of the global economy. In this century, English language has made significant progress towards becoming a language used in various sectors of the economy, ranging from technology to commerce (MacKenzie, Podsakoff, Podsakoff, 2011). Thailand is making significant progress towards adopting of English inculcating it within the education curriculum. This paradigm shift is experiencing a rise, with adoption and implementation policies geared towards making English as a second Language (ESL) in the classroom (Chan & Tan, 2006). Through the English medium instructions are quite helpful to students in improving their English proficiency, they usually experiences significant challenges in understanding classroom lessons delivered in English language (Joe & Lee 2013). Various researchers have indicated that first language for students plays a critical role in learning the target language (Lightbown&Spada, 2013; Rivers, 2011). However, another school of through proposed by Rawan (2016) holds the aspect that exposure to the target language such as English is important to maximize the learning process for the learners.

Online learning

Online learning has a great impact in the manner in which education is being implemented and perceived. Through online learning, high schools can take advantages of this technology, and make English learning faster, cheaper and more effective. Many education systems can organize for learning processes to take place online, as these strategic benefits could outweigh its costs (Andreou, Vlachos, Andreou, 2005). Online learning is considered as a learner-centered education, which enables learning to take place whenever, wherever and whatever they wish according to the set learning objectives. However, Harb, El-Shaarawi (2007) holds that for high school students, the online learning structure should be consistent with the knowledge management practices in the schools. More importantly, it is important to facilitate resources management in schools, such as time and space sharing

since they provide an environment in which knowledge management takes place.

English in thailand

In Thailand, English is not a colonial language as it is in other developing countries, and therefore have experienced a slow development in the nation as compared to other post-British colonial countries. Thailand lacks the history of colonial and post-colonial English that is experienced by these other countries in the region. Despite this status, this language is considered as a high-status foreign language in the country, due to the role it plays in the present globalized world. In Thailand, English is considered to have evolved to the current status, through what is considered to be the direct and indirect contact with the Anglophones. Through English is considered as a foreign language, it is still considered as a vial language in Thailand.This is because is a tourist destination and where travelers go for short holidays and adventures, and English is considered as a main language of communication. Teaching English and learning English by students in Thailand have always been a national issue. There are various factors that affect use of English (Suh, Kim, Kim, 2010). In an attempt to advance English language is maintained as a mandatory unit at the tertiary level, while the undergraduate course have at least 4 English subjects, which are equivalent to 12 credits (Huang & Brown, 2009). However, researchers hold that it is vital to monitor the English language teaching so that high schools and other institutions teaching English would follow same standards and processes of English course.

Learning english online

Another important phenomenon, which has been significantly flourishing, is concept of learning English online. Online learning is considered significant since it gives the concerned students with a platform in which they could learn English at their own pace, and more importantly, expose them to English. The online platforms, mostly referred to as e learning provides students with materialsand facilities, which could be suitable to their levels of proficiency (Suepalang, 2013). Researchers observe that that the use of English through the online platform is vital, as they provide a platform where the learners could better understand than the classroomenvironment. They are considered suitable in high school learning of English since they are more flexible, and students can use the platform at their own free time.However, various factors influence English use in online platforms. For instance, the information communication technology (ICT) is not effectively developed or available in all areas. Some high schools do not have electricity, which creates what is referred to as 'digital divide'.

Virtual school online learning platform

Virtual School Online Learning Platform is the Thailand's leading online platform, which facilitates online learning for Thai students. The platform provides educational courses to students with wide range of available courses,

which students can then be registered online and see the schedule to attend classes online. It is just a like an online platform connecting students to teachers, and beauty of this platform is - students in rural/upcountry provinces of Thailand can have a good quality education. The platform is Thailand's number one,online learning platform fully equipped with AI technology able to randomize questions in assessments based on the student's skill level. It helps to analyze the ability of the learners at any level. It is also designed platform and courses in a way to encourage the self-learning from the available learning resources such as learning materials, PowerPoint, recorded videos by experts' lecturers available on the platform. There are also pre-test and post-test of the lecture that help determine the students' skill level improvement and success rate of students' course completion. In addition, students can choose any medium to learn tablet, smart phone, or computer. The platform has other applications available for Macintosh, Android, and Windows Operating System.

Purpose of study

Based on the above background, this research will investigate on the aspect of applying the UTAUT model to investigate the factors that affect the use of English via Virtual School Online Learning Platform amongst Thai High School Students. The following will be the objectives of the study:

1. To determine how performance expectancy affects users' intention to use of English withVirtual School OnlinePlatform amongst Thai High School Students
2. To determine how effort expectancy affects users' intention to use of English withVirtual School OnlinePlatform amongst Thai High School Students
3. To determine how social Influence affects users' intention to use of English withVirtual School OnlinePlatform amongst Thai High School Students
4. To determine how facilitating conditions affects users' intention to use of English withVirtual School OnlinePlatform amongst Thai High School Students
5. To determine how previous education success affects users' intention to use of English withVirtual School OnlinePlatform amongst Thai High School Students
6. To determine how users' behavioral intention to use of English withVirtual School OnlinePlatform amongst Thai High School Students affects their users' actual use

Conceptual framework and study variables

In this study, the UTAUT frameworkwas applied to evaluate the factors affecting the use of learning English with Virtual School OnlinePlatform amongst Thai High School Students. According to UTAUT model, there are four factors that influence use of English online learning platforms which are: performance expectancy, effort expectancy, social influence, and facilitating conditions. Addition to these factors, this study will include the aspect of

'previous education success' among the variables. These variables are defined in the Table 1 below.

Table 1: Variables and their definition

Variable	Definition
Performance expectancy	It refers to the extent the user expects the proposed technology to make his or her job easy to do (Venkatesh and Davis, 2000)
Effort Expectancy	It implies how easy or cheap the proposed technology could be applied
Social Influence	It implies how a person considers other people's views with regard to using the new technology (Venkatesh and Davis, 2000)
Facilitating Conditions	It implies how supporting the technical and organizational aspects and infrastructure are to the use of new technology (Venkatesh and Davis, 2000)
Previous education success	The performance of the students in the previous periods of learning (Venkatesh and Davis, 2000)
Behavioral Intention to use	Implies the intention os a person to carry out an act, which could predict a given behavior when an individual act voluntarily (Tseng et al, 2019).

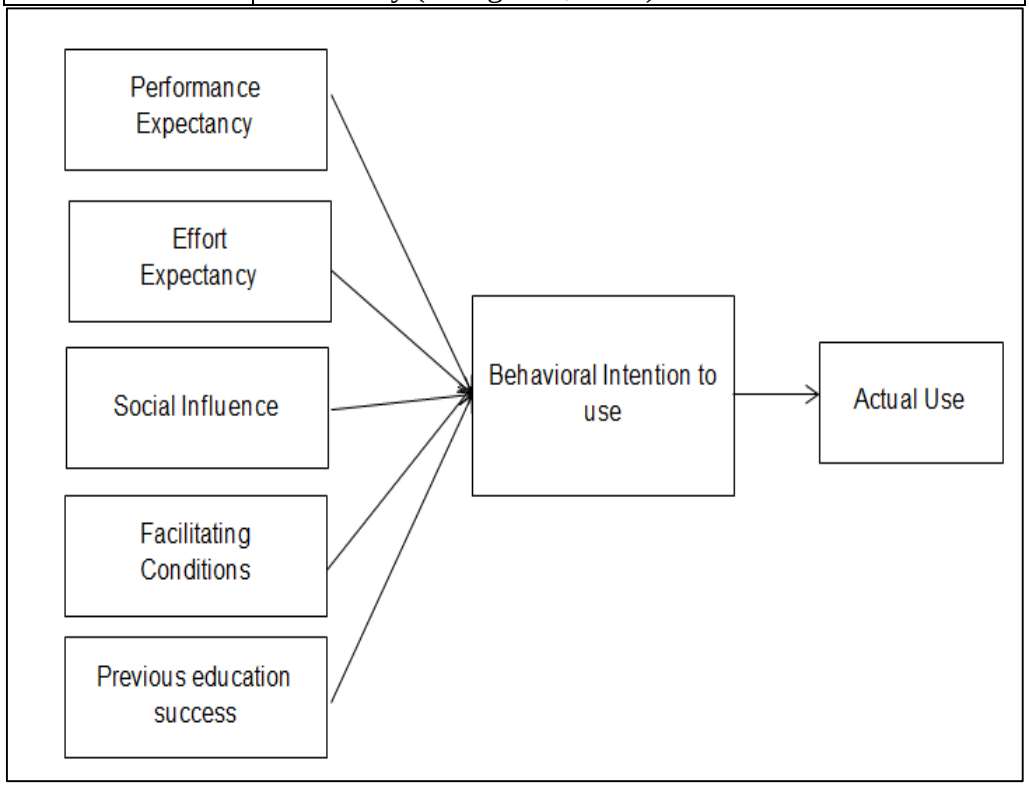

Figure 1: Conceptual Framework

Hypothesis

The UTAUT model is developed from the use of other frameworks such as technology acceptance model (TAM), social cognitive theory (SCT), theory of reasoned action (TRA) among other theories. The UTAUT theory is composed using the using the core determinant of the usage intention (Venkatesh et al., 2003). The UTAUT model is considered appropriate to be used for this study since it has constructs which significantly predicts the intention to use. Based on these observations, the following hypothesis were developed:

1. **Hypothesis 1**: Performance expectancy positively affects users' behavioral intention to useof English withVirtual School OnlinePlatform amongst Thai High School Students
2. **Hypothesis 2**: Effort expectancy positively affects users' behavioral intention to useof English withVirtual School OnlinePlatform amongst Thai High School Students
3. **Hypothesis 3**: Social Influence positively affects users' behavioral intention to useof English withVirtual School OnlinePlatform amongst Thai High School Students
4. **Hypothesis 4**: Facilitating conditions positively affects users' behavioral intention to useof English withVirtual School OnlinePlatform amongst Thai High School Students
5. **Hypothesis 5**: Previous education success positively affects users' behavioral intention to useof English withVirtual School OnlinePlatform amongst Thai High School Students
6. **Hypothesis 6**: Users' behavioral intention to useof English with Virtual School OnlinePlatform amongst Thai High School Students positively affects their users' actual use

METHODOLOGY

As indicated in the above conceptual framework, the study hasa total of seven variables.Inthis study, there are 5 exogenous variables namely performance expectancy (PE), effort expectancy (EE), social influence (SI), facilitating conditions (FC), and previous education success (SPS). There are two endogenous variables which arebehavioral intention (BI) to use and actual use (AU). The study adopted a quantitative methodology, where the quantitative data is collected from the representative sample and analyzed quantitatively. The study population was the Thai high school students using the Thailand's Virtual School Online Platform. Data has been collected from 1,044 high school students of Thailand through survey questionnaire to determine the useof learning EnglishwithVirtual School Online Platform.The study applied the 5-point Likert scale, which ranges from 1 = strongly disagree to 5 = strongly agree (Venkatesh et al., 2003).The data was analyzed using structural equation modelling using SmartPLS.

FINDINGS

Evaluation of model fitness

The evaluation of the measurement model was carried out based on its validity and reliability. For reliability, the measurement of the model was done using Cronbach's alpha and the composite reliability (CR). For the validity, the measurement was done using the convergent reliability (CR) and discriminant reliability (DR). the reliability results are presented in Table 2 below.

Table 2: Measurement of Constructs Reliability

	Cronbach's Alpha	rho_A	CR	AVE
AU	0.903	0.904	0.954	0.912
BI	0.887	0.891	0.93	0.816
EE	0.872	0.879	0.912	0.722
FC	0.909	0.912	0.932	0.733
PE	0.909	0.909	0.936	0.785
SPS	1	1	1	1
SI	0.903	0.905	0.932	0.774

The reliability of the study constructs is used to evaluate how well the constructs can measure its items. The reliability is assessed using the Cronbach's Alpha and composite reliability (CR). From the statistics data presented in the above table, the Cronbach's alpha values rangedbetween 0.872 and 1.0 for EE and SPS respectively, and CR values were between 0.912 and 1.0 for EE and SPS respectively. For both metrics, they are above the 0.7 minimum score (Fornell and Larcker, 1981). This suggests high internal reliability. The values for the average variance extracted (AVE) ranged from 0.722 for EE to 1.0 for SPS. Since this range was greater than the recommended cutoff of 5.0 of each of the included constructs, they indicated convergent validity.

Another aspect was to evaluate the discriminant validity (DV) of the constructs using the Fornell - Larcker criteria. For this evaluation, the square root of the AVE for each of the latent variables are compared with its inter-construct correlation. For the study to have a satisfactory levels of DV, it is required that the AVE squarerot should be larger than the other constructs correlation (Fornell and Larcker, 1981). This implies that the values of the main diagonal should be greater than those of the off-diagonal. From the Table 3 below, the square root of AVE re shown in the diagonal with bold values. Since they exceed the inter-construct correlations, they show that there satisfactory levels of discriminant validity.

Table 3: Measuring discriminant validity of the constructs

	AU	BI	EE	FC	PE	SI	SPS
AU	**0.955**						
BI	0.841	**0.903**					
EE	0.715	0.735	**0.85**				

FC	0.805	0.834	0.83	**0.856**			
PE	0.762	0.778	0.762	0.782	**0.886**		
SI	0.786	0.806	0.826	0.857	0.793	**0.88**	
SPS	0.674	0.692	0.666	0.718	0.631	0.665	**1**

Statistical analysis and hypothesis testing

The SEM was used to assess the effect of the independent variables (PE, EE, FC, SI, and SPS) on the BI, and the effect of BI to AU of useof learning Englishwith Virtual School Online Platform amongst Thai High School Students.

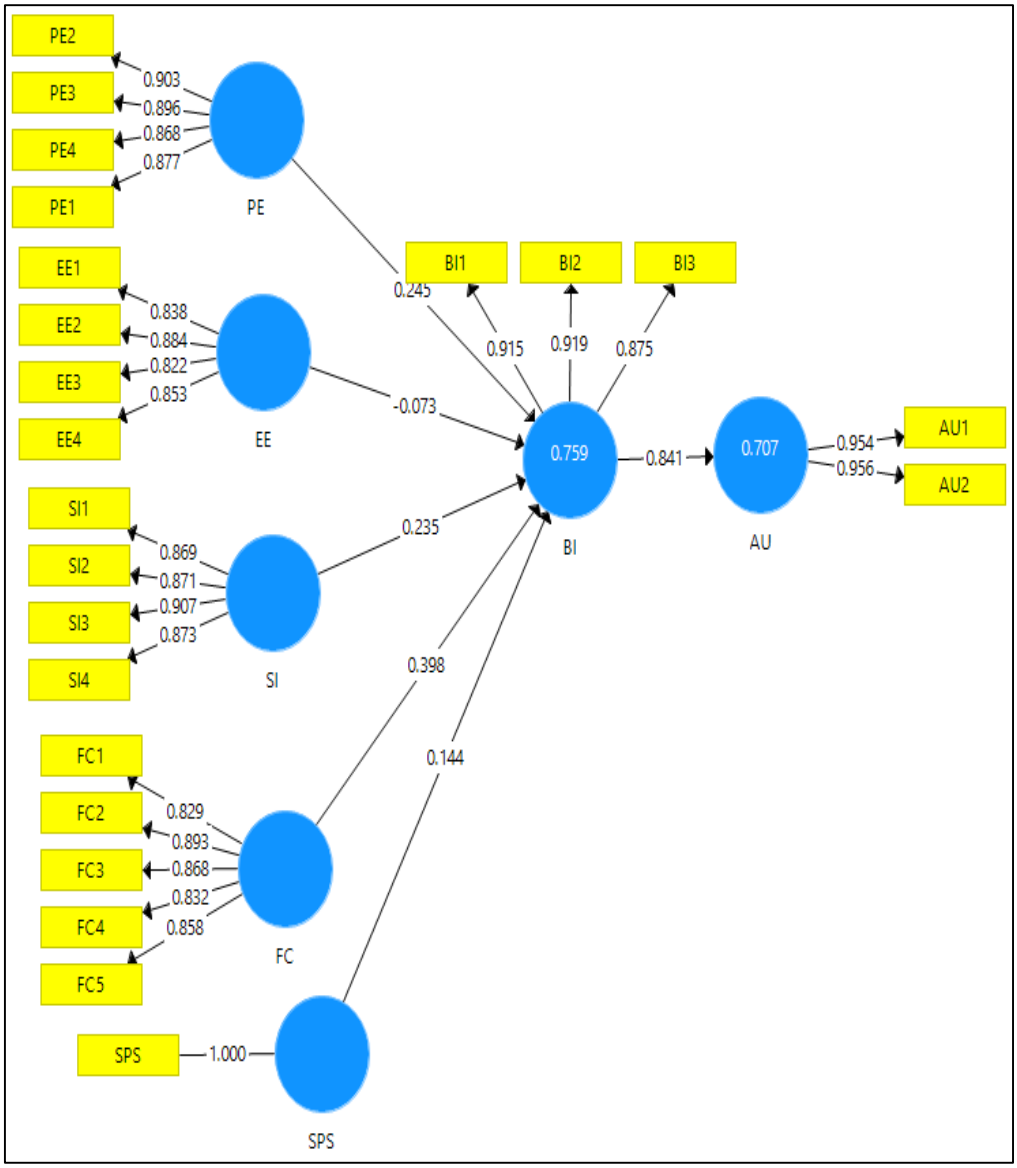

Figure 2: Model Statistical Output

The figure above shows the analysis model. Two models are present, the inner model and the outer model. For the outer model, it shows the relationship between the seven latent variables (both independent and dependent) and their

observed variables. The path between the latent and observed variables depicts the outer weights or loadings. The inner model represents the model of interest in this study. it shows the relationship between the independent and dependent variable, based on UTAUT model. The inner model represents the path coefficients (total effects) which shows the proportion to which the independent variable affects the dependent variable (BI) in the model. The data shows that the effect of PE is 24.5%; EE is -7.3%; SI is 23.5%; FC is 39.8%; and SPS is 14.4% on BI respectively. This shows that facilitating conditions (FC) has the highest effect on behavioral intention (BI) to useof learning English with Virtual School Online Platformamongst Thai High School Students.

The inner model constructs show the r-squared values. For the first construct, the r-squared = 0.759, which indicates that 75.9% of the variation in BI is explained by the five constructs (PE, EE, SI, FC and SPS). The second construct r-squared is 0.707, which indicates that 70.7% of the variation in AU is explained by BI and other variables in the model.
The effects of each construct (PE, EE, SI, FC, and SPS) on BI was evaluated by direct effects, and the results are summarized in the Table 4 below.

Table 4: effects of each construct (PE, EE, SI, FC, and SPS) on BI

	beta	**Mean**	**STDEV**	**t-Statistics**	**P-Values**	**Significance**
BI -> AU	0.8411	0.8409	**0.0108**	77.6012	0.0000	Significant
EE -> BI	-0.073	-0.0708	0.0375	**1.9448**	0.0524	Not Significant
FC -> BI	0.3982	0.4016	0.0478	8.3273	**0.0000**	**Significant**
PE -> BI	0.245	0.2443	0.0384	6.3777	0.0000	Significant
SI -> BI	0.2355	0.2315	0.0441	5.3392	0.0000	Significant
SPS -> BI	0.1439	0.1423	0.0289	4.9732	0.0000	Significant

The table above shows that Behavioral intention (BI) has a positive and significant relationship with actual use (AU) ($\beta = 0.8411$, $t = 77.6012$, $p< 0.05$) of the useof learning English with Virtual School Online Platform amongst Thai High School Students. The data also indicated that a significant direct relationship between FC and BI ($\beta = 0.3982$, $t = 8.3273$, $p< 0.05$). The results also indicated a positive significant relationship between PE and BI ($\beta = 0.245$, $t = 6.3777$, $p< 0.05$); SI and BI ($\beta = 0.2355$, $t = 5.3392$, $p< 0.05$); and SPS and BI ($\beta = 0.1439$, $t = 4.9732$, $p< 0.05$). in summary, BI has a positive and significant effect on AU, while FC, PE, SI and SPS was found to have a positive and significant effect on BI. However, the effect of EE on BI was negative and non-significant ($\beta = -0.073$, $t = 1.9448$, $p> 0.05$).

Table 5: Indirect effects of constructs on AU

	beta	**Mean**	STDEV	T Statistics	P Values	Significance
EE -> BI -> AU	0.0614	-0.0596	**0.0316**	1.9451	0.0523	Not Significant
FC -> BI -> AU	0.3349	0.3377	0.0403	**8.3045**	0.0000	Significant
PE -> BI -> AU	0.2061	0.2054	0.0326	6.3259	**0.0000**	Significant
SI -> BI -> AU	0.1981	0.1947	0.0373	5.3107	0.0000	Significant
SPS -> BI -> AU	0.121	0.1197	0.0244	4.9543	0.0000	Significant

The indirect effects of the five constructs (PE, EE, SI, FC, and SPS) on the AU through BI was evaluated, and the results are presented in Table 5 above. The data indicated that: FC has a significant indirect effect on AU ($\beta = 0.3349$, $t = 8.3045$, $p < 0.05$); PE has a significant indirect effect on AU ($\beta = 0.2061$, $t = 6.3259$, $p < 0.05$); SI has a significant indirect effect on AU ($\beta = 0.9181$, $t = 5.3107$, $p < 0.05$); SPS has a significant indirect effect on AU ($\beta = 0.121$, $t = 4.9543$, $p < 0.05$). However, EE has a non-significant indirect effect on AU through BI ($\beta = 0.0614$, $t = 1.9415$, $p > 0.05$).

DISCUSSION AND CONCLUSION

This study evaluated the factors affecting the Use of learning English withVirtual School Online Platform amongst Thai High School Students by applying the UTAUT model. The model applied in this research was unique as it included an additional construct of 'previous educational success (SPS)', in additional to the usual four constructs of UTAUT model. The model evaluated whether these constructs PE, EE, SI, FC and SPS predicts BI, and whether BI predicts AU.The research model explained 75.9% for the BI independent variable and 70.7% for the AU independent variables, which is considered quite satisfactory. The crucial factors that were found to have a significant direct effect on BI were PE, SI, FC and SPS. Among them, FC had the highest direct effect on BI follows by PE. Therefore, PE aspects such as ability of Virtual School Online Platformto improve learning results, enhance learning motivation, increase performance and usefulness in school study have a positive and significant effect on BI to use the platform by Thai secondary school students. Similarly, SI aspects such as views of important people, people affecting students learning behavior, peers and fashionable has significant influence on the behavioral intention to useof English via Virtual School Online Platformamongst Thai High School Students. Facilitating conditions such as resources, knowledge, ability to solve problems, website fits, and technical assistance have significant influence on BI. The study also found that behavioral intention to useof English with Virtual School Online Platformamongst Thai High School Students positively affects their' actual use. These findings are in line with that of (Venkatesh et al., 2003; Khalilzadeh et al., 2017; Šumak et al., 2017).From these findings,

online learning platforms such as Virtual School Online Platformhave been important in learning English in Thailand. Considering that English is a foreign language in the country, the government should adopt policies and strategies that encourage learning English through online platforms. Based on the findings of the present study, online learning is a crucial method of learning English for Thai high school students. If the students find online learning easy to use, engaging, improve their learning performance and effectiveness, and support from those around them, they BI towards using online platforms to learn English, and their actual use will be increased.

In conclusion, this study has developed a comprehensive model of applying the UTAUT model to understand factors affecting the use of learning English with Virtual School Online Platformamongst Thai High School Students. The data was collected from a total of 1,044 high school students. The results revealed that the model has high level of internal consistencyand reliability, which is an indication that the proposed model has a substantial explanatory power. The results of the study revealed a positive and significant influence of PE, SI, FC and SPS on the BI to use of online learning platforms such as Thailand's Virtual School Online Platformto learn English. The study revealed that BI significantly influences the accrual use of online learning platforms such as Thailand's Virtual School Online Platformin learning English. Facilitating conditions such as resources were found to be the major factors that influence behavioral intention. Based on the findings of this study, policy makers and decision makers in the Thai education sector should consider online learning platform as a major channel through which high school students should learn English.

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