Evaluating the Use and Acceptance of eLearning for Tertiary Education among Senior High School Students

Patricia O. Calora[1] and Yrelle Mae R. Lleva[2]
[1]Research Assistant, University of the Philippines Open University, Philippines, patricia.calora@upou.edu.ph
[2]Research Assistant, University of the Philippines Open University, Philippines, yrellemae.lleva@upou.edu.ph

Abstract

This paper sought to determine senior high school students' preconceived notions about eLearning, as well as their behavioral intention to pursue tertiary education online. Generally, it aimed to evaluate the use and acceptance of eLearning technologies among senior high school students in a private high school in Los Baños, Laguna. Stratified sampling was used to identify respondents from five K-12 strands – accountancy, business and management (ABM); science, technology, engineering and mathematics (STEM); humanities and social science (HUMSS); information and communication technology (ICT); and general academic strand (GAS). Grounded in the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2), 200 respondents were surveyed. The moderating effect of UTAUT variables on the respondents' behavioral intention was examined through correlation and regression analysis. Results showed that majority of the respondents had a positive behavioral intention to pursue tertiary education through eLearning. Of the UTAUT constructs, only performance expectancy was found to be a significant predictor of behavioral intention. A weak association was observed between sex and social influence; as well as between age and hedonic motivation.

Keywords: *eLearning technologies, UTAUT, UTAUT2, use and acceptance, eLearning for tertiary education*

Introduction

The Philippines aims to raise the quality of education and ensure that all its citizens have equal access. According to the Philippine Development Plan (PDP) 2017-2022 published by the National Economic Development Authority (2017), most of the challenges faced by educational reform initiatives is caused by the lack of 'human capital development'. There is a huge need to improve educational facilities and services to increase the participation rate of students. In order to achieve global competency standards and address the problems faced by our educational system, the government has put in more effort by increasing the budget and initiating beneficial structural changes in the primary and tertiary levels (Macha, Mackie, and Magaziner, 2018).

As a country that values education and sees it as a "great equalizer of opportunities," collaborative effort to improve the learning and instruction process through information and communications technology (ICT) has been encouraged (Garcia, 2017). Several initiatives meant to improve the quality of education have been implemented. On the side of learners, alternative learning system (ALS) programs have been designed for out-of-school youths (OSY) to enhance their technical and vocational skills. For teachers, many programs have been developed to hone their instruction skills. These include pre-service teacher training programs through practicum teaching and establishment of teacher education institutions (TEIs).

One of the most notable actions taken by the government is the full implementation of the K to 12 Education Program. The program was introduced in 2010 and was signed as a Republic Act in 2013. Prior to this reform, the Philippines was only one of three countries who had yet to employ the K to 12 system of education (Official Gazette, n.d.). The Commission on Higher Education (CHED) is committed to ensuring quality education for all Filipinos; guided by the belief that education is a right, not a privilege. With the full implementation of Republic Act 10931 (R.A. 10931) or the Universal Access to Quality Education Act, all Filipino citizens will have equal opportunity to learn in state universities and colleges (SUCs) and local universities and colleges (LUCs). R.A. 10931 democratizes education by allowing free tertiary education.

The year 2018 saw the first batch of graduates from the K to 12 Program. With it, came a surplus of potential college students. The higher number of people gearing for tertiary level education poses a problem for traditional residential universities, due to the lack of physical, financial, and human resources to sufficiently accommodate the influx of new learners.

The inadequacy of current infrastructure is one of the issues that must be addressed - one that can be answered with eLearning technologies. eLearning maximizes the potential of existing technologies, such as the internet, to address teaching and learning gaps and equip both students and teachers with new knowledge and skills (Oye, Salleh, & Iahad, 2010). Its primary purpose is to "increase accessibility of education and reduce transportation and infrastructure costs" (Chen & Jang, 2010). Furthermore, eLearning also facilitates intercultural exchange of knowledge and promotes lifelong learning for all (Nagarajan & Wiselin, 2010). Open and Distance eLearning (ODeL) clearly presents a solution to the residential limits of traditional universities.

With the emergence of eLearning technologies in the 21st century, researchers have sought to determine factors that affect technology adoption. Following the belief that that acceptance is a precursor to technology adoption, many studies have focused on the factors that could affect intention to use. Given ODeL's capability to make quality education accessible to all, this study was done to determine future college student's – particularly senior high school (SHS) students – perception, use, and acceptance for eLearning in tertiary education.

Objectives

In general, this study aimed to determine the acceptability of ODeL for tertiary education among senior high school students.

Specifically, it aimed to:
1. Determine the socio-demographic characteristics of the respondents;
2. Describe the respondents' perception of eLearning technologies;
3. Identify senior high school students' behavioral intention to pursue undergraduate studies completely through eLearning;
4. Determine the relationship between the UTAUT constructs and the respondents' socio-demographic profile; and
5. Identify the factors, grounded in UTAUT, affecting senior high school students' behavioral intention.

Conceptual/Theoretical Framework

This study was guided by the Unified Theory of Acceptance and Use of Technology (UTAUT), which is a synthesis of eight user acceptance models – Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), Technology Acceptance Model (TAM), Motivational Model (MM), TAM and TPB combination, innovation diffusion theory (IDT), Social Cognitive Theory (SCT), and PC utilization model (Venkatesh, Morris, Davis & Davis, 2003). This model aims to describe users' acceptance and intention to use a technology.

UTAUT posits that there are four direct determinants of behavioral intention (BI) and use. These are performance expectancy (PE), effort expectancy (EE), social influence (SI), and facilitating conditions (FC). Additionally, the relationship between the constructs and BI and use is moderated by four factors – age, sex, voluntariness of use, and experience (Venkatesh, et. al., 2003).
Since the initial UTAUT viewed technology adoption more from an organizational context, the research model was extended to account for consumer acceptance and use of technology. UTAUT2 had three additional constructs – hedonic motivation (HM), price value (PV), and habit (H), which were included based on a review of prior technology adoption research. In terms of the moderating factors, voluntariness of use was removed (Venkatesh, Thong & Xu, 2012).

In this paper, only the direct determinants of behavioral intention were examined. Other factors such as self-efficacy and computer anxiety were excluded. PE was operationalized as the degree to which respondents' believed the use of eLearning technologies would be helpful in achieving their academic goals. EE referred to the respondents' belief about the amount of effort they need to exert into using eLearning technologies. SI measured the value of the respondents' significant others' perception about eLearning. FC encapsulated the factors that enabled them to pursue tertiary education online. This included the physical resources, as well as know-how to operate eLearning technologies. HM referred to the degree of enjoyment the respondents will get from an eLearning environment. PV measured the monetary cost respondents would incur from eLearning. Lastly, H referred to the automaticity respondents' associated with their use of eLearning technologies. It measured the degree to which eLearning technologies was integrated into their lives.

This study's theoretical framework (Fig. 1.) illustrates the relationships between variables. Seven UTAUT constructs were used. As for the moderating factors, voluntariness of use was removed because, in an eLearning institution, the use of eLearning technologies would automatically become mandatory.
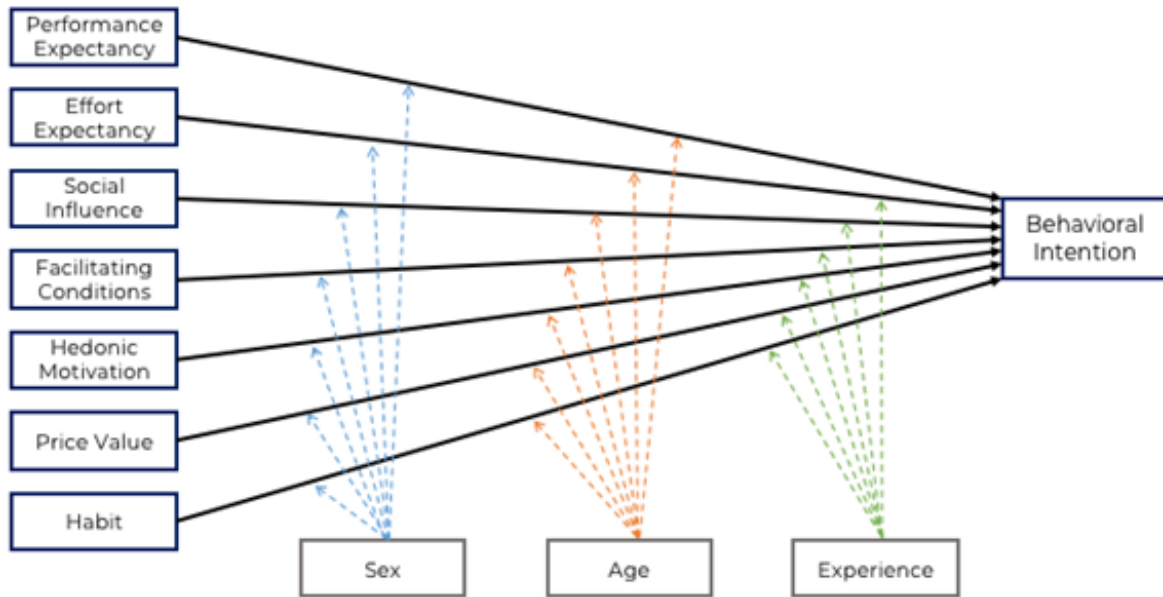
Figure 1. Theoretical Framework of the Study

The conceptual framework (Fig. 2) illustrates the theorized relationships that will be examined in this paper. To be specific, the constructs' influence on behavioral intention, and the sociodemographic profile's moderating effect on the constructs will be examined.
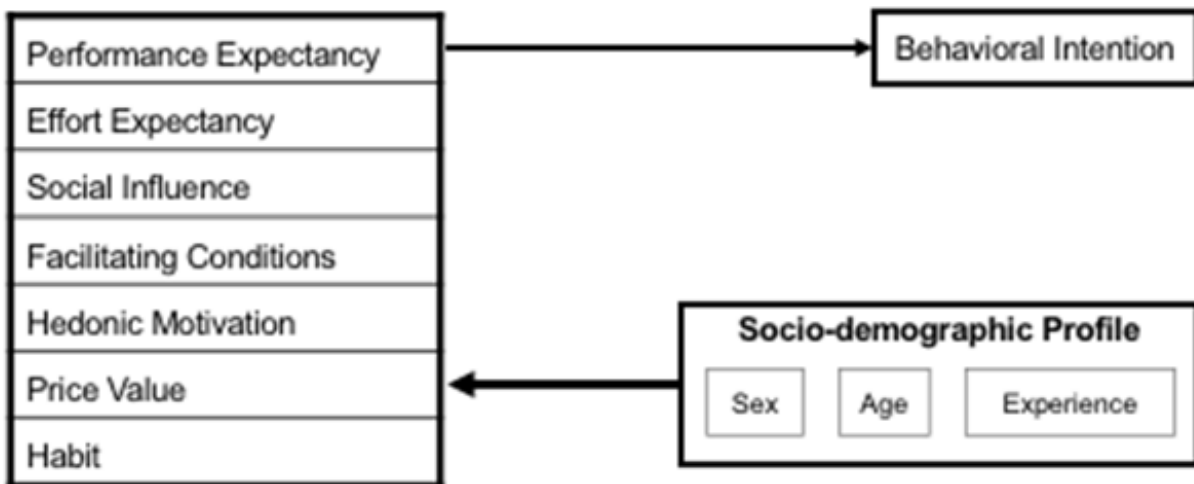

Figure 2. Conceptual Framework of the Study

Review of Related Studies

ICT has played a significant role in widening access to quality education around the world. This is especially true in developing countries, with the incorporation of technology in new teaching methods, and implementation of eLearning in general. eLearning has brought forward a more convenient way for learners and instructors to exchange information and gain knowledge (Tarhini, Hone & Liu, 2013).

In many developing countries, eLearning is promoted as a solution for democratizing education. The Philippines, for example, has mandated the expansion of access to quality education through open and distance learning in higher education since 2014. Moreover, the Commission on Higher Education (CHED), in its CHED Memorandum Order no. 46, mandated all Higher Education Institutions (HEI) to develop outcome based curricula. This was made to promote learner-centered education. This is a promising initiative but still questions the country's readiness in adopting such change (Doculan, 2016). An important method to determine the country's preparedness for educational reforms is to identify the attitude and behavioral intentions of the potential learners.

One of theories used to examine technology acceptance and use is the UTAUT, which integrates eight leading user acceptance models (Venkatesh, et.al, 2003). In this theory, four direct determinants of behavioral intention is proposed - PE, EE, SI, and FC. It was noted that the most significant predictor of behavioral intention is the PE. The underlying constructs of this predictor includes perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations. This was later modified by Venkatesh and colleagues (2012) to include more constructs – HM, PV, and H. UTAUT2 viewed technology adoption from a consumer's point of view. Dečman (2015) tested UTAUT's validity in a mandatory eLearning environment of a higher education institution and determined that the theory was generally applicable in eLearning settings. Wang, Wu, & Wang (2009) used UTAUT to evaluate mobile learning (mLearning) acceptance in Taiwan. Using structural equation modeling, results showed that constructs such as performance expectancy, effort expectancy, social influence, perceived playfulness, and learning self- management were significant determinants of behavioral intention. In addition, gender and age differences had a moderating effect on the constructs.

Ngampornchai & Adams (2016) examined the acceptance and readiness for eLearning of students from Northern Thailand. UTAUT constructs were examined in conjunction with the respondents' ability to self-regulate, ownership of computer devices, and familiarity with educational technologies. Results showed that PE and EE were strong indicators of technology acceptance. It was noted that the students who think that eLearning is useful and easy are more likely to be motivated in using it. The approval of parents was also seen as associated with the attitude and perception of the students with regards to eLearning.

In a study conducted by Khechine, Bytha, and Lakhal (2014), they examined the moderating effects of age and sex in the behavioral intention of students to utilize eLearning, particularly webinars, for education. It employed the UTAUT model as the framework. Age had a moderating effect on BI. On the other hand, sex did not have a significant effect with the students' intention to participate in webinars. It was noted that respondents' behavioral intention towards eLearning depended on their performance expectancy as they believed that the chances that they will be employed or accepted for further studies depended on the results of their academic performance. Mandelbaum (2014) examined the perceptions of employers of eLearning and the employability of online degree graduates in their institutions. He employed both quantitative and qualitative data

for the study where the researcher used a survey questionnaire and interviewed the participants. The results showed that majority of the employers and administrators see online learning as valuable. Some of the respondents noted that the reputability of the online graduates' institution was an important factor to be considered.

In a study conducted by Alasmari (2017), he explored the acceptance of the graduate students in Saudi Arabia of the mobile learning technology. The results showed that there was an association between four factors in the UTAUT model except for the social influence construct which was affected by the gender variable. Men showed stronger intentions in engaging in mobile learning than women.

Danesh Sedigh (2013) analyzed the use of a theoretical model in the Evidence Based Medicine (EBM) trainers' acceptance of eLearning. The researcher found out that the most influential factor to the behavioral intention (BI) in utilizing an eLearning framework is experience. The data was gathered through the use of Technology Acceptance Model (TAM) for the survey.

Wijewardene, Azam and Khatibi (2018) explored the perception of students in online learning and its perceived risk. It aimed to determine the UTAUT factors influencing the behavioural intention of the students in Sri Lanka. Results showed that Performance Expectancy (PE), among all the UTAUT factors, was the most influential in the students' intention in using online learning.

In Thomas, Singh, and Gaffar's (2013) study, the researchers determined the acceptability of mobile learning for higher education in a developing country like the Philippines. The proponents used UTAUT model in explaining the results. They emphasized that the facilitating conditions should be addressed and their attitude towards eLearning should be improved. Performance expectancy and social factors were found to influence behavioral intention.

Carbonilla Gorra and Bhati (2016) studied the perceptions of the students in Surigao, Philippines in using eLearning methods in the classroom. They noted the positive and negative effects of eLearning as perceived by the students in the province. It was discovered that students are more encouraged to use the technologies if they are not accessed through mobile phones.

With the implementation of the K-12 program in the country and the potential of eLearning to cater to the surplus of SHS graduates, it has become increasingly important to study the factors that would make them consider eLearning as a viable mode of study for their tertiary education. Many researchers have sought to determine certain populations' readiness for eLearning; however, there is a lack of research that explored the acceptability of eLearning among SHS in the Philippines. As articulated by Wang and colleagues (2003), acceptance is critical in the successful implementation of eLearning systems.

Methodology

This study sought to determine factors that could predict SHS students' behavioral intention to pursue tertiary education through eLearning. A quantitative research design was used.

Respondents were identified from the five tracks of the K-12 program – ABM, STEM, HUMSS, ICT, and GAS – using stratified sampling. A survey questionnaire was designed to collect data from the respondents, whose consents were obtained beforehand, in accordance with R.A. 10173 or the Data Privacy Act.

The survey questionnaire was divided into three parts. The first part was designed to collect information on the respondents' sociodemographic profile. The second part consisted of multiple choice, yes or no questions, and open- ended questions aimed at gathering data on SHS students' perception about and prior experience with eLearning. The third and last part consisted of Likert-type statements designed to measure the UTAUT constructs. A 5-point Likert scale ranging from strongly agree to strongly disagree was used. Table 1 shows the corresponding numerical value for each of the Likert scale's response categories.

Table 1. Five-point Likert Scale Interpretation

Response Categories	Numerical Value
Strongly Agree	1
Agree	2
Neither Agree or Disagree	3
Disagree	4
Strongly Disagree	5

For data analysis, descriptive statistics was used in conjunction with inferential statistics. Aside from frequency counts and measures of central tendency, correlation and regression analyses were employed to determine the relationship between independent and dependent variables. Specifically, Chi-square test of independence and Spearman correlation was used to determine the relationship between the sociodemographic profile and UTAUT constructs; logistic regression was used to examine the relationship between the UTAUT constructs and behavioral intention.

Results and Discussions

Senior high school students were surveyed to determine their acceptance of eLearning by identifying predictors of their behavioral intention to take tertiary education online. The study took into account the different strands characteristic of the K-12 program. A total of 200 out of 227 respondents gave their consent to participate, giving this study a response rate of 88.11%.

Sociodemographic Profile

Results showed that respondents were aged 17-21 years old, with the majority (68.7%) being 17. There were slightly more females (53.5%) than males (46.5%). Majority of them (79.7%) had plans to take up undergraduate studies in the fields of medicine, engineering, sociology, communication, computer science, agriculture, and psychology, to name a few.

In terms of their technology use, there was an equal amount of respondents (50%) who owned a personal computer or laptop and those who did not. A total of 83.4% of the participants had internet access. With regard to the devices used for internet access, smartphones were the most prominent (88.06%), followed by laptops/computers (46.77%), and then tablets (12.94%).

The respondents primarily used technology for communication (46%), followed by knowledge acquisition (22%), skills development (18.5%), entertainment (15%), and information sharing (11%). All of the respondents were familiar with using technology to support their learning activities. With their smartphones, laptops/computers, or tablets, they accessed socializing spaces (85%), chat applications (51.5%), audio/video materials (37%), educational games (33.5%), virtual libraries (18.5%), learning platforms (15%), online courses (14.5%), and online forums (10.5%).

Perception of eLearning Technologies

The respondents were asked questions about their perceptions on eLearning. While majority had preconceived notions about eLearning, 15.5% had no idea; 46% described eLearning as online learning, 44.5% believed it was learning at their own pace, 31.5% thought it was attending live lectures over the internet, and 26.5% had the impression that it was learning by watching pre-recorded videos.

While majority (65.5%) believed that eLearning enabled learners to have a flexible schedule, only 48% believed it provided people with a solution for studying despite their geographical location. Even less (38.5%) had knowledge about technologies that enabled students to take exams or submit assignments online. While 36% thought interaction between students and instructors was feasible using different tools, only 18% believed collaboration between students was possible.
In terms of cost, 97% believed eLearning is more affordable than the traditional residential mode of study. Only a little less than one-third (23.1%) of the respondents doubted the feasibility of online lectures.

UTAUT constructs were measured through Likert-type statements. In general, the respondents mostly agreed with the statements under PE, EE, SI, FC, HM, and H. However, the overall degree of agreement for PV leaned more on the neutral side. A summary is presented in Table 2.

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Table 2. Respondents' Likert scale responses to the UTAUT constructs

Construct	SA		A		NAD		D		SD		Total	Interpretation
	N	%	N	%	N	%	N	%	N	%		
PE1	66	33	106	53.00	26	13.00	2	1.00	0	0	200	Agree
PE2	35	17.59	109	54.77	50	25.13	5	2.51	0	0	199	Agree
PE3	69	34.67	94	47.24	30	15.08	6	3.02	0	0	199	Agree
PE4	40	20.41	82	41.84	59	30.10	13	6.63	2	1.02	196	Agree
EE1	36	18	99	49.50	54	27.00	9	4.50	2	1	200	Agree
EE2	31	15.5	92	46.00	71	35.50	6	3.00	0	0	200	Agree
EE3	32	16	96	48.00	62	31.00	9	4.50	1	0.50	200	Agree
EE4	27	13.85	85	43.59	70	35.90	10	5.13	3	1.54	195	Agree
SI1	28	14	84	42.00	65	32.50	19	9.50	4	2	200	Agree
SI2	24	12.31	84	43.08	65	33.33	19	9.74	3	1.54	195	Agree
SI3	31	15.90	81	41.54	65	33.33	16	8.21	2	1.03	195	Agree
FC1	38	19	97	48.50	52	26.00	12	6.00	1	0.50	200	Agree
FC2	30	15.08	116	58.29	46	23.12	7	3.52	0	0	199	Agree
FC3	35	17.5	92	46.00	64	32.00	9	4.50	0	0	200	Agree
FC4	39	19.5	102	51.00	52	26.00	6	3.00	1	0.50	200	Agree
HM1	38	20	116	61.05	29	15.26	7	3.68	0	0	190	Agree
HM2	45	22.61	109	54.77	41	20.60	2	1.01	2	1.01	199	Agree
HM3	47	23.86	103	52.28	41	20.81	5	2.54	1	0.51	197	Agree
PV1	38	19	74	37.00	81	40.50	7	3.50	0	0	200	Neutral
PV2	19	9.5	70	35.00	96	48.00	13	6.50	2	1	200	Neutral

PV1	38	19	74	37.00	81	40.50	7	3.50	0	0	200	Neutral
PV2	19	9.5	70	35.00	96	48.00	13	6.50	2	1	200	Neutral
PV3	28	14	87	43.50	79	39.50	6	3.00	0	0	200	Agree
H1	33	16.92	78	40.00	69	35.38	15	7.69	0	0	195	Agree
H2	26	13.47	85	44.04	70	36.27	10	5.18	2	1.04	193	Agree
H3	31	15.82	72	36.73	72	36.73	20	10.20	1	0.51	196	Agree

Behavioral Intention

Majority of the respondents (71.2%) was willing to take their undergraduate degrees through an online learning institution. They cited accessibility of resources (61%) as the most important factor in an online learning environment, followed by student support (42.5%), collaborative environment (41.5%), engaging interactive content (39%), and teacher presence (36%) as the least. With regard to the perception of possible employers, 87.8% of the respondents did not believe eLearning graduates will be discriminated against. This is reinforced by Mandelbaum's (2014) study that found employers' perception of online graduates' employability to be positive. However, this perception is influenced by the reputability of their institution.

Moderating effect of Sociodemographic Characteristics

The association between the sociodemographic characteristics and UTAUT constructs was analyzed through Chi-square test of independence and Spearman Correlation.

The following hypothesis was tested for the chi-square test of independence:
Ho: The variables are independent. Ha: The variables are associated
Decision Rule: Reject Ho if p-value < α = 0.05.

The values obtained for the chi-square test of independence are summarized in Table 3.

Table 3. Relationship between respondents' age and UTAUT construct scores

Construct	Test Statistic	p-value	Conclusion
PE	42.6639	0.956	Not associated
EE	50.5875	0.961	Not associated
SI	44.1624	0.706	Not associated
FC	49.5069	0.831	Not associated
HM	88.7446	0.027	Associated
PV	25.5208	0.991	Not associated
H	52.4288	0.746	Not associated

Results showed that of all the constructs, only HM was associated with age. To quantify this association, Spearman correlation was used. Values obtained from this statistical test were interpreted according to Table 4.

Table 4. Interpretation for Spearman correlation values

Value	Interpretation
0.01 to 0.19	Very Weak
0.2 to 0.39	Weak
0.4 to 0.59	Moderate
0.6 to 0.79	Strong
0.8 to 0.99	Very Strong

With the resulting coefficient (-0.0866), the Spearman correlation analysis showed a very weak inverse association between age and HM. As age increased, HM score decreased. However, it should be noted that the inverse association was a result of the lower numerical value assigned to the Likert scale response "strongly agree." Therefore, as the age of participants increased, their agreement with the sentiment that "eLearning technologies are enjoyable" increased as well.
As for sex, results of Spearman correlation found that it has a very weak direct association (0.1488) with SI. In general, there were more males who agreed with the idea that people around them approved of eLearning technologies, which supported prior research.

These results were consistent with previous eLearning acceptance studies using UTAUT. Wang and colleagues (2009) examined mLearning acceptance in Taiwan and determined that age and sex had a moderating effect on some of the UTAUT constructs. To be specific, Wang and colleagues (2009) found that age had a moderating effect on EE and SI. In this study, age only had an association with SI. The lack of an association with EE may be because the respondents belong to the same group, all of whom are knowledgeable in using technology to support their learning.

Results of this study were also echoed by Ngampornchai & Adams (2016), who examined the acceptance and readiness for eLearning of students from Northern Thailand. Gender differences also had a moderating effect on SI. The significance of SI on males' BI was attributed to their higher familiarity with mLearning technology. In this study, there were more male than female respondents under the ICT strand. This could be a possible explanation for their higher SI score. Since all the respondents had prior experience with eLearning technology, the relationship between experience and the UTAUT constructs was not examined due to a lack of variability in the results.

While results of this study showed that SHS sociodemographic profile is associated with some of the UTAUT constructs, further studies need to be done in order to validate these claims.

UTAUT Constructs as Predictors of Behavioral Intention

Logistic regression was used to model the UTAUT constructs as the independent variables and the behavioral intention as the dependent variable (Table 5).

Construct	Coefficient	Standard error	p-value
Performance Expectancy	-0.3967	0.1118	<0.0001
Effort Expectancy	0.1552	0.0972	0.110
Social Influence	-0.1011	0.1100	0.358
Facilitating Conditions	0.0656	0.1153	0.570
Hedonic Motivation	-0.0758	0.1004	0.450
Price Value	-0.0065	0.1202	0.957
Habit	-0.03733	0.0958	0.697

LR chi squared = 32.42 (p<0.0001); Pseudo-R^2 = 0.1409.

Table 5. Relationship between UTAUT factors and Behavioral Intention

Results showed that, of the UTAUT studies, only PE was a significant predictor of behavioral intention. Behavioral intention decreased as performance expectancy score increased. In this study, higher performance expectancy scores denoted more disagreement with the construct. This meant behavioral intention decreased as respondents' perception of performance expectancy became more negative. Therefore, respondents who had a more positive performance expectancy – those who believed eLearning would help them achieve their academic goals – were more likely to have a behavioral intention to pursue tertiary education through eLearning.

In eLearning acceptance studies, PE has been found to be a consistent predictor of behavioral intention (Wang et. al., 2009; Thomas et. al., 2013; Wijewardene et. al., 2018). Usefulness can motivate behavioral intention (Ngampornchai & Adams,2016). This is also consistent with the original UTAUT study, which posits PE to be the strongest predictor of BI among all the constructs (Venkatesh, et. al., 2003).

Contrary to previous studies, EE, SI, FC, HM, PV, and H were not significant predictors of BI. The perceived effort needed to use eLearning, as well as the opinions of other people on eLearning, was not a significant predictor of behavior. The same goes for the lack or presence of resources, support, or knowledge necessary for eLearning; enjoyability of eLearning; and monetary cost of eLearning. Even the degree to which eLearning technologies was integrated in the lives of the respondents was not significant.

In the case of EE and H, these constructs may not influence BI because the respondents all had high computer self- efficacy. They habitually used technology to support their learning and have regular experience with eLearning applications and services. Two of the three statements used to estimate PV were neutral. This denoted a lack of knowledge on the monetary costs required for eLearning.

Conclusions

This study sought to determine the acceptability of eLearning for tertiary education among SHS students. Both descriptive and inferential statistics were used to analyze the data obtained using a survey questionnaire.

There were slightly more females than males among the respondents. Aged between 17-21 years old, the SHS students all had prior experience with using eLearning technologies. Overall, they had a positive perception of eLearning technologies, being in agreement with all of the UTAUT constructs. Majority of them had a positive behavioral intention; meaning, they were willing to take tertiary education online.

Correlation and regression analyses were used to determine if the sociodemographic profile had a moderating effect on the UTAUT constructs, as well as if the UTAUT constructs were predictors of behavioral intention.

Age and sex were each found to have a weak association with only one construct – HM and SI, respectively. Older respondents were more likely to find eLearning technologies enjoyable. Male respondents were also more likely to have significant others who had a positive impression of eLearning technologies. Prior experience with eLearning technology was part of the

sociodemographic profile. However, since all the respondents had a positive response to the variable, it was not correlated with the UTAUT constructs due to the lack of statistical variance.

In terms of the constructs' predictive capability when it comes to behavioral intention, only PE was found to be significant. Respondents who had a more positive performance expectancy – those who agreed that eLearning technologies would increase their productivity and have a positive effect on their studies – were more likely to have a positive behavioral intention for online tertiary education.

This research provided the information regarding the factors affecting users' acceptance of eLearning. This will enable educators to design online curricula or programs that cater to the needs of the potential students. It will also help eLearning institutions in the process promoting their courses to the possible influx of higher education students.

Recommendations

Results of this study showed that most of the respondents lacked enough knowledge about eLearning technologies and eLearning in general. Specifically, they had little to no knowledge about the system of learning in an online learning environment; how classes would be conducted, how they would participate, and how they would be assessed. For this reason, they were unsure if eLearning would be a good fit for them. However, almost a third of the respondents were willing to take their undergraduate degrees through an online learning institution.

Since performance expectancy or the belief that eLearning would be conducive to their academic goals was found to have a significant relationship with the respondents' behavioral intention, the following were recommended for eLearning institutions or eLearning practitioners:

1. Future information, education, and communication (IEC) campaigns should be more detailed in terms of conveying how an eLearning system works;
2. IEC materials should give more focus on how students can achieve their academic goals through eLearning;
3. In the development of online undergraduate programs, course developers should consider the accessibility of resource materials and ensure that student support is available;
4. As a consideration for future courses or even existing courses, ensuring a collaborative, engaging, and interactive environment is important; and
5. In terms of course implementation, a visible teacher presence is vital to encourage student success.

The results of this study were limited to its respondents. Moving forward, future research studies may consider the following directions:

1. A follow-up study may be done where the respondents' actual use behavior is also examined. In this way, the observed relationships between constructs may be confirmed;
2. SHS students' academic strands may influence their intention to take tertiary education online. Future studies may collect data on this factor as part of the sociodemographic

profile. Whether or not the academic strand has a moderating effect on the UTAUT constructs or on behavioral intention can be studied;

3. In terms of data collection, indirect determinants of behavioral intention such as computer self-efficacy and computer anxiety may also be included in the variables to be tested. Considering respondents' attitude towards eLearning may also increase the explanatory power of the study;

4. For data analysis, other statistical methods may be used. To be specific, other regression models may be employed; and

5. The effect of perceived risk on Filipino students' behavioral intention regarding eLearning may also be studied.

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Patricia O. Calora and Yrelle Mae R. Lleva