Online Distance Learning Amidst Covid-19 Pandemic Among University Students: A Practicality of Partial Least Squares Structural Equation Modelling Approach

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Abstract: World Health Organization declared the coronavirus disease 2019 (Covid-19) outbreak, caused by severe acute respiratory syndrome coronavirus 2 to be a pandemic on March 12, 2020. In response to that, Malaysia has announced movement control order effective on March 18, 2020, leading to the near-total closures of education centers. University closures impact not only students, lecturers, and families, but have far-reaching economic and societal consequences. In response to that, Universiti Teknologi MARA (UiTM) has introduced the use of online distance learning and open educational applications and platforms that lecturers can use to reach learners remotely and limit the disruption of education. Even though UiTM has already adopted the integrated face-to-face and online learning approach in the classroom since many years ago, however, the commencement of solely using online learning platforms, in the absence of face-to-face meetings is challenging. In addition, it is also crucial to note that the previous study on the determinants of the intention and effective use of online distance learning is scarce. Thus, this study seeks to identify the significant relationship between the intention and the effective use of an ODL among the students. Findings from this study reveals that four out of five determinants (performance expectancy, effort expectancy, social influence, facilitating condition and intrinsic value) found to be significantly related with the behavioral intention of the students to use online distance learning. Behavioral intention also was found to be significant with use behavior. Although the intrinsic values (new determinants) have contributed to the theory, it is recommended that the same study will be carried out to the entire education center, either public or private.

Keywords: Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Intrinsic Value, Behavior

1. Introduction

In an unprecedented turn of events, Covid-19 has changed the way students are educated around the globe within a short span of time (Chung, Subramaniam, & Dass, 2020). The educational system

worldwide has witnessed the near-total closures of schools, colleges, and universities following the coronavirus (Covid-19) outbreak which was later announced as a pandemic by the World Health Organisation (WHO). Inevitably, the stakeholders of these institutions have been greatly affected in light of the halted teaching and learning routines. The impact goes even beyond the aforementioned educational circle as the pandemic outbreak has also taken both economic and societal sectors by storm. In response, the Malaysian government has summoned the Movement Control Order (MCO) aiming to break the chain of Covid-19 and such enforcement ruled by the Prime Minister is believed to be the utmost necessary prevention onwards. The unprecedented crisis, henceforth, entails significant transformation on the learning system at large in accordance with the government's order. The use of distance learning programmes is therefore recommended due to the infeasibility of the traditional method of content delivery. This new norm in academia adapts to the Web 2.0 generation through the integration of social aspects into learning activities as manifested in the blooming social media learning platforms. Thanks to the progressive development of social learning technologies, the multitude of learning spaces currently available in the internet realm presents a transformed lecturers-students and peer-to-peer engagements, both off- and online. On the same page, their manner of interactions and rooms for collaborations have also diversified.

Universiti Teknologi MARA (UiTM) has already adopted the integrated face-to-face and online learning approach in the classroom since many years ago. However, the ongoing MCO has shifted the teaching and learning processes to commence solely using an online learning platform, in the absence of face-to-face meetings. Starting from 23rd of April 2020, UiTM has implemented the Online Distance Learning (ODL) in order to accommodate their education system. Flexibility, being its most notable feature in the discussion of ODL refers to the access of information as well as wide-range resources made easy without any rigidity. Hence, ODL enables the online learning to be conducted at any time, any place or any pace, following the students' convenience. While a large body of research has shown no significant difference in the learning outcomes when comparing online learning with traditional face-to-face classes, the situation will be different among the UiTM students within the context of this study. Previously, the students have highlighted several enquiries regarding the internet stability, network coverage, and compatibility of the devices among many others. These help shed light on the readiness of the students to embrace the use of the online learning which is apparently questionable. Furthermore, their engagement when using the social media for academic purposes is uncertain despite the students themselves being the digital natives as they express their interests and enjoy its usage for personal related matters only (Quong, Snider, & Early, 2018). It is also crucial to note that the previous study on the determinants of the intention and effective use of ODL is scarce (Khechine, Raymond & Augler, 2020). Thus, this study seeks to identify the significant relationship between the intention and the effective use of an ODL among the students.

2. Literature Review

The growing number of educational institutions across the globe which adopt online learning implies that universities, for instance, acknowledge what it has to offer – broadening the information access beyond geographical boundaries, being one of the main attributes (Langley, 2007). According to Lachewski (2011), online learning is defined as a group of learning arrangements consisting of three building blocks, namely, modern information, communication technologies (personal computer or other devices) and the Internet. On the other hand, computer-based, web-based, technology based learning and virtual education opportunities are categorised as the applications and processes involved to further scaffold the online learning (Reshma, Soumya & Sr. Juli, 2017). Thanks to the advancement of technologies, the addition of social media and Web 2.0 technologies into the picture serves as the catalyst to enhance online learning experiences as they are reported to be the most preferred tools available to date (Vaughan, Cleveland-Innes, & Garrison, 2013). As a result, an array of studies has elucidated positive feedback informed by the students following their increased level of user satisfaction, knowledge, as well as learning in general (Popescu & Cioiu, 2011).

2.1 Underpinning Theory

Albert Bandura, a Canadian psychologist in the early 60s, proposed the social learning theory which has then led to the concept of social learning to be introduced. Bandura's theory primarily argues that our learning is highly influenced by the surrounding, or what he termed as the physical social environment. He illustrated such learning to occur through observation of people within the close social circle such as the parents, classmates and colleagues (Bandura, 1977). Moving forward, the physical aspect of the social environment in Bandura's theory has been extended to the virtual world as Web 2.0 technologies have enabled similar social environment to be created virtually (Raspopovic, Cvetanovic, Medan, & Ljubojevic, 2007; Smith & Berge, 2009).

Multitude of studies have contributed to the development of theories on the acceptance of technologies among the users. These include the (1) Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975), (2) Technology Acceptance Model (TAM) (Davis, 1989), (3) motivational model (Davis, Bagozzi, & Warshaw, 1992), (4) Theory of Planned Behavior (TPB) (Ajzen, 1991), (5) combined TPB/TAM (Taylor & Todd, 1995), (6) model of personal computer utilization (Thompson, Higgins, & Howell, 1991), (7) diffusion of innovation theory (Rogers, 1995), and (8) social cognitive theory (Compeau & Higgins, 1995). Years later, the new Unified Theory of Acceptance and Use of Technology (UTAUT) model has enabled the researchers to predict the users' behaviour even more thoroughly, as compared to the existing ones (Khechine, Ndjambou, & Lakhal, 2016). The design of UTAUT in 2003 sought to provide the synthesis on those previous eight theories (Venkatesh, Morris, Davis, & Davis, 2003). This present study, with reference to the UTAUT model, has adapted the model's original extrinsic drivers of adoption which are the performance expectancy, effort expectancy, social influence and facilitating conditions (Venkatesh, Morris, Davis, & Davis, 2003). The addition of intrinsic value on top of the extrinsic drivers has resulted in the extension of the UTAUT model. This construct observes how the positive feelings in an individual such as the sense of joy and the expression of interest while carrying out an activity (Chiu & Wang, 2008) influence the behavioural intention as these enhance the level of engagement and eventually, establish a prolonged usage of the system which is highly sought after (Turel & Serenko, 2012).

The performance expectancy (PE) is defined as the perception of the user when using the online system in order to increase their job performance (Venkatesh et al, 2003). This variable denotes the study performance among the users in the educational context. Performance expectancy construct every so often becomes the strongest predictor in the prediction of behavioural intention to use technology (Venkatesh et al, 2013). The use of meta-analysis in Khechine et al.'s (2016) study, it was therefore argued that the perception of what they shall benefit from through the adoption of online learning (e.g. productivity, efficiency, and effectiveness) has led the users' anticipation to be heightened. Therefore, this study proposes the following hypothesis:

H1: There is a positive relationship between performance expectancy and behavioral intention to use online distance learning.

The effort expectancy (EE) is defined as the perception of ease in using the system (Venkatesh et al., 2003). This second variable indicates the ease of use among the students in the educational context when using the online learning. Researchers have noted the frequent occurrences of positive and significant relationship to exist between the effort expectancy construct and the prediction of behavioural intention (Venkatesh, Thong, & Xu, 2016). This owes to the systems' user-friendly key feature which highly influences the users' willingness to adopt them. Accordingly, we propose testing the following hypothesis:

H2: There is a positive relationship between effort expectancy and behavioral intention to use online distance learning.

The social influence (SI) construct is defined as the perception of the importance that others attach to the use of the system by the user (Venkatesh et al., 2003). This variable designates how the perceptions

and opinions of others in the immediate social circle influence the use of online distance learning in the educational context. There have been several attempts to elucidate how this factor works in affecting one's likelihood to utilize technologies (Sripalawat, Thongmak, & Ngramyarn, 2011; Suoranta & Mattila, 2004; Yu, 2012). Therefore, the next proposed hypothesis is:

H3: There is a positive relationship between social influence and behavioral intention to use online distance learning.

The facilitating conditions (FC) variable is defined as the availability of well-functioning technical necessities to enable the users' usage of the system (Venkatesh et al., 2003). These facilities are varied, ranging from human support, organizational as well as technical assistance. According to Venkatesh et al. (2012), a positive and significant relationship between facilitating conditions and the behavioural intention is reported through the UTAUT2 model. In light of using the online distance learning, the following hypothesis is put forward:

H4: There is a positive relationship between facilitating conditions and behavioral intention to use online distance learning.

The use of Expectancy-Value Model of Achievement (EVMAM) in plethora of studies has probed into integrating intrinsic value to suit their respective research contexts. One noteworthy example is that of Vanslambrouck, Zhu, Lombaerts, Philipsen, and Tondeur (2018), in which they investigated a group of postsecondary students who are enrolled in a teacher-training programme. These students were assessed on the underlying reasons and values they attribute to during their participation in the online and blended learning. They defined intrinsic value as the "pleasure one has in participating or the subjective interest they have in their education." Meanwhile, Thompson et al. (1991) attempted to define intrinsic value as "the affective component of attitude and measured with items related to fun and interest" which was later mirrored to be similar to "affect towards use" concept prevalent in the field of information system management. Triandis (1980) who originally discovered the aforementioned concept suggested its impact on influencing the behaviour of an individual. Thus, the following hypothesis was postulated to explore the use of a social learning system:

H5: There is a positive relationship between intrinsic value and behavioral intention to use online distance learning.

The notion of intention being the precursor of action is highly endorsed in several models related to the adoption of technology. Fishbein and Ajzen (1975) stated, "behavioral intention measure will predict the performance of any voluntary act, unless intent changes prior to performance." This phenomenon is further substantiated by Khechine et al. (2016) as they attested that behavioural intention and use behaviour to have a positive relationship using their UTAUT research which utilized the meta-analysis approach. Within the boundary of this present research, the use of a social learning system is said to conform to a voluntary act, thus the sixth hypothesis to be tested is as follows;
H6: In the case of a voluntary act, there is a positive relationship between behavioral intention and the use behavior of an online distance learning.

3. Methodology

The questionnaire utilised the 5-point Likert scales ranging from strongly disagree to strongly agree. The samples were randomly collected from the students in Universiti Teknologi MARA (UiTM), Malaysia which comprises 14 campuses nationwide. From the total number of 158,184 full time undergraduate students, 1627 completed questionnaires were returned after two follow-up sessions made which led to 1.03% response rate.

The Rule of Thumb proposed by Barclay et al (1995) when determining the sample size in simple or multiple regression, with partial least squares, requires the sample size to either be (1) 10 times the number of the indicators from the most complex formative construct or (2) 10 times the largest number of latent predictors of an explained construct. In this study, the most complex constructs are social influence with 7 items. The number of latent predictors is 5 of use behaviour construct. Thus, the required sample size is 70 respondents, in which this study has received a higher number than this even despite the low response rate.

3.1 Data Collection

The online survey administered questionnaire was distributed to collect the empirical data from the respondents. 38 items were constructed by using Google Forms and took about 10 minutes to complete. For demographic profiles, the findings were presented as Table 1 below. In order to test for the relationship, the data were then analysed using partial least squares (PLS) and presented in the section 4.

Table 1: Demographic Profiles

Items	Frequency	Percent (%)
Gender		
Male	455	28.0
Female	1172	72.0
Total	1627	100.0
Age		
18-20 Years Old	1018	62.6
21-23 Years Old	563	34.6
24-26 Years old	39	2.4
17 Years Old and Above	7	0.4
Total	1627	100.0
Race		
Malay	1205	74.1
Bumiputra	422	25.9
Total	1627	100.0
Education Level		
Bachelor's Degree	508	31.2
Diploma	1115	68.5
Pre-Diploma	4	0.2
Total	1627	100.0
Average Household Income		
RM8,320 and Above	176	10.8
RM3,861 to RM8,319	462	28.4
RM3,860 and Below	989	60.8
Total	1627	100.0

4. Results and Discussion

4.1 Normality Test

Normality Test was performed and measured using skewness and kurtosis. George and Mallery (2016) suggested that the value for normality is between -2 to +2. The results of this study showed that the value ranged from -0.483 to 0.589. Hence, the data was considered to be normally distributed.

Table 2: Normality Test

	PE	EE	SI	FC	IV	BI	UB
Skewness	-0.054	-0.192	-0.394	-0.026	-0.067	0.589	0.430
Kurtosis	-0.309	-0.314	0.524	-0.063	-0.480	-0.451	-0.483

4.2 Multicollinearity Test

Correlations among variables exist when the values are more than 0.9 (Tabachnick and Fidel, 1996). In order to overcome the problem, one of the variables must be removed from further analysis. Based on the results of this study, all the correlations values are below 0.9, thus no multicollinearity problem was detected.

Table 3: Multicollinearity Test

	PE	EE	SI	FC	IV	BI	UB
PE	1						
EE	0.769**	1					
SI	0.768**	0.756**	1				
FC	0.825**	0.786**	0.825**	1			
IV	0.804**	0.725**	0.779**	0.866**	1		
BI	0.667**	0.566**	0.576**	0.704**	0.726**	1	
UB	0.702**	0.588**	0.614**	0.740**	0.767**	0.971**	1

** Correlation is significant at the 0.01 (2-tailed)

4.3 Construct Validity

Convergent validity that includes factor loading, average variance extracted (AVE), and composite reliability (CR) must be assessed to test the measurement model (Hair, Ringle & Sarstedt, 2013). According to Hair, Anderson, Babin and Black (2010), factor loading must exceed 0.5 while AVE value and CR values must exceed the recommended values of 0.5 and 0.7 respectively (Hair, Ringle & Sarstedt, 2011). Table 4 shows the values for factor loading, AVE and CR were above the recommended values for this measurement model.

Table 4: Construct Validity and Reliability

Constructs	Items	Loadings	AVE	CR
Performance Expectancy	SB1	0.870	0.746	0.946
	SB2	0.831		
	SB3	0.910		
	SB4	0.915		
	SB5	0.901		
	SB6	0.743		
Effort Expectancy	SC1	0.918	0.836	0.939
	SC2	0.909		
	SC3	0.916		
Social Influence	SD1	0.853	0.578	0.904
	SD2	0.862		
	SD3	0.549		

	SD4	0.692		
	SD5	0.756		
	SD6	0.749		
	SD7	0.816		
	SE1	0.823		
	SE2	0.808		
	SE3	0.825		
Facilitating Condition	SE4	0.894	0.731	0.942
	SE5	0.888		
	SE6	0.887		
	SF1	0.907		
	SF2	0.932		
Intrinsic Value	SF3	0.892	0.836	0.953
	SF4	0.924		
	SG1	0.955		
Behavioral Intention	SG2	0.930	0.903	0.965
	SG3	0.965		
	SH1	0.953		
Use Behavior	SH2	0.958	0.881	0.957
	SH3	0.904		

4.4 Discriminant Validity

In order to test for discriminant validity, Heterotrait-Monotrait (HTMT) ratio was performed. According to Henseler et al (2015), the suggested threshold value of 0.90 is needed for discriminant validity. Table 5 showed the results of HTMT which was fulfilled by the model of this study.

Table 5: Heterotrait-Monotrait Ratio

	PE	EE	SI	FC	IV	BI
EE	0.838					
SI	0.851	0.852				
FC	0.887	0.861	0.896			
IV	0.862	0.789	0.860	0.829		
BI	0.711	0.613	0.634	0.749	0.772	
UB	0.755	0.642	0.680	0.794	0.822	0.878

4.5 Hypotheses Testing

Table 6 shows the result of hypothesis testing. From the table, five out of six tested hypotheses were supported.

Table 6: Hypotheses Testing

Hypotheses	beta	t value	LL	UL	p value	Result
H1: There is a positive relationship between performance expectancy and behavioral intention to use online distance learning.	0.034	4.626	0.095	0.208	0.000	Supported
H2: There is a positive relationship between effort expectancy and behavioral intention to use online distance learning.	0.030	1.620	-0.100	0.003	0.053	Not Supported
H3: There is a positive relationship between social influence and behavioral intention to use online distance learning.	0.031	2.099	-0.113	-0.011	0.018	Supported
H4: There is a positive relationship between facilitating condition and behavioral intention to use online distance learning.	0.041	6.849	0.210	0.344	0.000	Supported
H5: There is a positive relationship between intrinsic value and behavioral intention to use online distance learning.	0.034	10.462	0.302	0.411	0.000	Supported
H6: In the case of a voluntary act, there is a positive relationship between behavioral intention and the use behavior of an online distance learning.	0.007	121.305	0.861	0.884	0.000	Supported

The path coefficient of the relationship between performance expectancy and behavioral intention is significant and positive (β = 0.284, t-value = 2.107, p-value = 0.000), leading to support H1. This is confirmed by the lower level (LL) and upper level (UL) values of 0.095 and 0.208 respectively, which does not straddle zero. From the result, the researchers can assert that the expectation to improve performance contributes to the willingness of the students to use the ODL. This result is consistent with the study done by Liu et al (2014). Most of the students are very concerned with the performance in their studies when the university decided to change the mode of lecture delivery during MCO from a classroom basis to an online basis. However, when ODL was introduced, UiTM also revised the assessments for each subject, making them to be more practical oriented rather than exam oriented. This strategy was taken to ensure that the students are capable of maintaining their study performance in accordance with the use of ODL.

The relationship between effort expectancy and behavioral intention was found to be not significant (β = 0.030, t-value = 1.620, p-value = 0.053). The lower LL and UL values of -0.100 and 0.003 also support that the relationship does not exist because the values straddle zero. Primarily, the students are already exposed to the technologies for a long period of time yet their familiarity with the use of ODL appears to be contradictory. The researchers argue that the students pay less attention to the effort needed to familiarise themselves with the available tools necessary throughout the implementation of ODL. The results from Ain et al. (2016) and Venkatesh and Zhang (2010) were consistent with this finding. They reported an insignificant relationship between effort expectancy and behavioural intention in the contexts of a learning management system and a new technology in a business unit in the United States and China respectively.

The effect of social influence on behavioural intention was positive (β = 0.031) and significant (t-value = 2.099, p-value = 0.018). H3 (UL = -0.113, LL = -0.011) which states that a positive relationship between social influence and behavioural intention to use online distance learning, is confirmed. This result is consistent with the study done by Sripalawat, Thongmak, & Ngramyarn (2011), which found that social influence is a powerful determinant when using technology. Since this is the first time UiTM introduced their ODL, support by the lecturers is essential in making sure that the students are ready to use ODL in their studies in the absence of the face-to-face classroom. UiTM also had introduced the careline to provide social support to the students in facing this new normal of learning.

The path coefficient of the relationship between facilitating condition and behavioural intention is significant and positive (β = 0.041, t-value = 6.849, p-value = 0.000), leading to support H4. This is confirmed by the lower level (LL) and upper level (UL) values of 0.210 and 0.344 respectively, which does not straddle zero. From the result, the researchers can affirm that the availability of facilitating conditions contributes to making the students to be more willing to use the ODL. This result corroborates those of Venkatesh et al. (2012), who found a significant and positive relationship between facilitating conditions and behavioural intentions. Taiwo and Downe (2013) reported some studies that also discovered facilitating conditions as a significant predictor of behavioural intention. UiTM has introduced a few platforms such as UFuture, Google Classroom, Google Meet and many more to support the implementation of ODL. In addition, UiTM also has taken an initiative to give RM30 worth of vouchers to the students to enable them to purchase the internet data to support their ODL.

The effect of intrinsic value on behavioural intention was positive (β = 0.034) and significant (t-value = 10.462, p-value = 0.000). H5 (UL = 0.302, LL = 0.411) which indicates that a positive relationship between intrinsic value and behavioural intention to use online distance learning, is confirmed. This result is supported by previous studies like Chiu and Wang (2008) who found that **intrinsic** values are significant predictors of students' intentions to persist in e-learning. The researchers believe that investing in providing the best facilitating conditions for the students to utilize the technologies to be unprofitable if their intrinsic value towards its usage remains negative. On top of that, deducing that the students who have been using the technologies customarily for personal needs to also positively experiment its use for their educational purposes is fallacious. Thus, one of the recommendations to address this matter is for the lecturers to decide on using the ODL platforms which are intrinsically pleasing and interesting for the students to partake in.

The relationship between behavioural intention and use behavior was significant and positive (β = 0.007, t-value = 121.305, p-value = 0.000), leading to support of H6. This is confirmed by the lower level (LL) and upper level (UL) values of 0.861 and 0.884 respectively, which does not straddle zero. This result is consistent with the study done by Khechine et al. (2016) which confirmed the positive relationship between behavioural intention and use behaviour through a meta-analysis of the UTAUT research. The researchers argue that if the intention to use technology in learning exists, the behaviour to use the technology will follow suit. For this study, the students informed their readiness to use the technology-based platforms to support their ODL due to the university being a push factor, following the announcement of MCO made by the government. Even though the initial stage of ODL reported weak responses due to the students who were not yet ready, the scenario has gradually changed for the better thanks to endless support given by the university.

5. Conclusion and Recommendations

The aim of this study was to identify the relationship between performance expectancy, effort expectancy, social influence, facilitating condition, and intrinsic value with the intention to use online distance learning. The UTAUT model was used as the underpinning theory for this study and was extended by adding the intrinsic value construct as proposed by Khechine, Raymond and Augier (2020) on the intention to use the ODL.

The findings of this research have contributed to a better understanding on the importance of both extrinsic and intrinsic drivers for the adoption of online learning technologies. Meanwhile, the theoretical contribution of this study includes the testing of a new determinant (intrinsic value) to further substantiate the current theories. Besides, the results of this study demonstrate that there is a need to consider the weight of impact stemming from the intrinsic variable rather than solely focusing on the extrinsic counterpart with regards to the study on the adoption of technology.

Practically, the main contribution of this study is the context of the research – both geographically and its usage pattern. Firstly, given that the model employed is a reference from a previous study conducted in a developed country, this present research has taken place in the setting of a developing country (Malaysia). Therefore, testing the model in a geographically different research setting brings in new perspectives into the body of knowledge. Moreover, studies on social learning which integrates UTAUT

and intrinsic value construct are lacking in the main literature (Khechine, Raymond & Augier, 2020). Secondly, from the perspective of the usage pattern, the study by Khechine et al. (2020) which investigates the integrated social learning tools in their learning management system differs from the context of this research as UiTM students have entirely shifted to adopt ODL in the total absence of traditional classroom pattern whereas the former reported the blended learning format. Hence, the varying discovery from these two different contexts presumably taps into the existing variables at a greater depth as well as unearths new ones.

In fact, the key players in the education system such as the universities, the policy makers, alongside other stakeholders should look into the topic of social learning in the adoption ODL to be operated in the face of adversities. The ongoing MCO for instance, demands the existing designs and features of currently available online learning platforms to be revised due to the curriculum to be potentially revamped. To illustrate, administering classroom assessments online, on top of fulfilling the allotted weekly loading may cause all parties to be overwhelmed. Extended working hours, overlapping schedules, and communication breakdown are several instances to occur as assessments are highly specific according to the nature of the study programme. Hence, an informed decision should be made by the instructors based on the needs analysis of their respective students in order to determine the type, functions, and accessibility of the online learning platforms to suit the assessment alternatives discussed.

Therefore, the one-size-fits-all approach in the implementation of ODL is not applicable as this not only hinders the flow or the content delivery within the virtual classroom, but this also affects the psychological well-being since users are prone to get distressed. To reiterate, the selection of the ODL platforms and supplementary tools to execute teaching and learning routines should not only check the type and functionality boxes, as maintaining a healthy emotional state is equally important. By default, when the aforementioned criteria are met, both lecturers and students shall be intrinsically driven to explore the technologies to its fullest potential. After all, the intrinsic value is noted to be the most significant contributor in the prediction of behavioural intention and use behaviour in the context of ODL adoption (Khechine, Raymond & Augier, 2020).

In future, it is suggested that the study could be done by involving the students from other universities, either public or private, with the use of the same research model.

6. References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Bandura, A. (1977). *Social learning theory*. New York, NY: General Learning Press.

Barclay, D., Higgins, C., & Thompson, R. (1995). The partial least squares (PLS) approach to causal modeling: Personal computer adoption and use as an illustration. *Technology Studies, Special Issue, Research Methodology*, *2*(2), 285–309.

Chiu, C.-M., & Wang, E. T. G. (2008). Understanding web-based learning continuance intention: The role of subjective task value. *Information & Management*, *45*(3), 194–201.

Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online Learning Readiness Among University Students in Malaysia Amidst Covid-19. *Asian Journal of University Education, 16*(2), 45. doi:10.24191/ajue.v16i2.10294

Compeau, D. R., & Higgins, C. A. (1995). Computer self-efficacy: Development of a measure and initial test. MIS Quarterly, *19*(2), 189–211.

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, *13*(3), 319–339.

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and intrinsic motivation to use computers in the workplace. *Journal of Applied Social Psychology*, *22*(14), 1111–1132.

Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.

George, D., & Mallery, P. (2016). IBM SPSS statistics 23 step by step: A simple guide and reference. Routledge.

Hair, J. F., Anderson, R. E., Babin, B. J., & Black, W. C. (2010). Multivariate data analysis: A global perspective (Vol. 7).Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. Journal of Marketing theory and Practice, *19*(2), 139-152.

Hair, J. F., Ringle, C. M., & Sarstedt, M. (2013). Partial least squares structural equation modeling: Rigorous applications, better results and higher acceptance. Long range planning, *46*(1-2), 1-12.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. Journal of the academy of marketing science, *43*(1), 115-135.

Khechine, H., & Augier, M. (2019). *Adoption of a social learning platform in higher education: An extended UTAUT model implementation*. Proceedings of the 52nd Hawaii International Conference on System Sciences, Grand Wailea, Maui.

Khechine, H., Ndjambou, P., & Lakhal, S. (2016). A meta-analysis of the UTAUT model: 11 years later. Canadian Journal of Administrative Sciences, *33*(2), 138–152.

Khechine, H., Raymond, B., & Augier, M. (2020). *The adoption of a social learning system: Intrinsic value in the UTAUT model*. *British Journal of Educational Technology*, *0*(0), 1-20.

Lakhal, S., Khechine, H., & Pascot, D. (2013). Student behavioural intentions to use desktop video conferencing in a distance course: Integration of autonomy to the UTAUT model. *Journal of Computing in Higher Education, 25*(2), 93–121.

Langley, A. (2007). *Experiential learning, e-learning and social learning: The EES approach to developing blended learning*. Paper presented at the Fourth Education in a Changing Environment Conference Book, Santa Rosa, CA.

Laschewski, L. (2011). *Innovative e-learning in rural areas: A review*. Available at SSRN 1861912.

Liu, W. I., Rong, J. R., & Liu, C. Y. (2014). Using evidence-integrated e-learning to enhance case management continuing education for psychiatric nurses: a randomised controlled trial with follow-up. Nurse education today, *34*(11), 1361-1367.

Moore, G. C., & Benbasat, I. (1991). Development of an instrument to measure the perceptions of adopting an information technology innovation. Information Systems Research, *2*(3), 192–222.

Popescu, E., & Cioiu, D. (2011). eMUSE - Integrating Web 2.0 Tools in a Social Learning Environment. *International Conference on Web-Based Learning*, Hong Kong, China.

Quong, J., Snider, S. L., & Early, J. (2018). Reducing transactional distance in online and blended courses through the use of a closed social media platform. *Journal of Educational Technology Systems*, *47*(1), 79–100.

Raspopovic, M., Cvetanovic, S., Medan, I., & Ljubojevic, D. (2017). The effects of integrating social learning environments with online learning. *International Review of Research in Open and Distributed Learning, 18*(1), 141–160.

Rice, M. F., & Deschaine, M. E. (2020, April). Orienting Toward Teacher Education for Online Environments for All Students. In The Educational Forum *84*(2), pp. 114-125. Routledge.

Rogers, E. M. (1995). Diffusion of innovations. New York, NY: The Free Press.

Smith, M., & Berge, Z. L. (2009). Social learning theory in Second Life. Journal of Online Learning and Teaching, *5*(2), 439–445.

Sripalawat, J., Thongmak, M., & Ngramyarn, A. (2011). M-banking in metropolitan Bangkok and a comparison with other countries. The Journal of Computer Information Systems, *51*(3), 67–76.

Suoranta, M., & Mattila, M. (2004). Mobile banking and consumer behavior: New insights into the diffusion pattern. *Journal of Financial Services Marketing, 8*(4), 354–366.

Tabachnick, B. G., & Fidel, L. S. (1996). *USing Imiwariale SidisioS*. New York: Harpercollins College PublisheRS.

Taiwo, A. A., & Downe, A. G. (2013). The theory of user acceptance and use of technology (UTAUT): A meta-analytic review of empirical findings. *Journal of Theoretical and Applied Information Technology, 49*(1), 48–58.

Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research, 6*(2), 144–176.

Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal computing: Toward a conceptual model of utilization. *MIS Quarterly, 15*(1), 124–143.

Triandis, H. C. (1980). *Values, attitudes, and interpersonal behavior.* Paper presented at the Nebraska Symposium on Motivation, Lincoln, NE.

Turel, O., & Serenko, A. (2012). The benefits and dangers of enjoyment with social networking websites. *European Journal of Information Systems, 21*(5), 512–528.

Vanslambrouck, S., Zhu, C., Lombaerts, K., Philipsen, B., & Tondeur, J. (2018). Students' motivation and subjective task value of participating in online and blended learning environments. *The Internet and Higher Education*, 36, 33–40.

Vaughan, N. D., Cleveland-Innes, M., & Garrison, R. D. (2013). *Teaching in blended learning environments: Creating and sustaining communities of inquiry*. Edmonton, Canada: Athabasca University, Au Press.

Venkatesh, V., Morris, M. G., Davis, F. D., & Davis, G. B. (2003). User acceptance of information technology: *Towards a unified view. MIS Quarterly, 27*(3), 425–478.

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2016). Unified theory of acceptance and use of technology: A synthesis and the road ahead. *Journal of the Association of Information Systems, 17*(1), 328–376.

Venkatesh, V., & Zhang, X. (2010). Unified theory of acceptance and use of technology: U.S. vs. China. *Journal of Global Information Technology Management, 31*(1), 5–27.

Yu, C.-S. (2012). Factors affecting individuals to adopt mobile banking: Empirical evidence from the UTAUT model. *Journal of Electronic Commerce Research, 13*(2), 104–121.

Appendix 1: Adaptation of the Measurement Instruments

Section	Question
PE1	The use of social media learning platforms improves the performance in my learning activities (Chiu and Wang, 2008)
PE2	The use of social media learning platforms helps me to accomplish tasks more quickly (Venkatesh et al, 2003)
PE3	The use of social media learning platforms improves the quality of my learning activities (Lakhal et al, 2013)
PE4	The use of social media learning platforms enhances the effectiveness in my learning activities (Chiu & Wang, 2008)
PE5	The use of social media learning platforms increases the productivity in my learning activities (Venkatesh et al, 2013)
PE6	The use of social media learning platforms increases the chances of getting higher marks in the assessments (Venkatesh et al, 2013)
EE1	Learning how to use the social media learning platforms is very easy for me (Venkatesh et al, 2013)
EE2	It would be easy for me to become skilful in the use of the social media learning platforms (Venkatesh et al, 2013)
EE3	I find the social media learning platforms easy to use (Venkatesh et al, 2013)
SI1	People who influence my behaviour think that I should use the social media learning platforms (Venkatesh et al., 2003)
SI2	People who are important to me think that I should use the social media learning platforms (Venkatesh et al., 2003)
SI3	I use the social media learning platforms because my classmates use them (Thompson et al., 1991)
SI4	My lecturer is helpful in the use of the social media learning platforms (Venkatesh et al., 2003)
SI5	My supervisor is very supportive of the use of the social media learning platforms (Thompson et al., 1991)
SI6	In general, the university has supported the use of the social media learning platforms. (Venkatesh et al., 2003)
SI7	In my class, all students enjoy using the social media learning platforms (Lakhal et al., 2013)
FC1	I have the resources necessary for the use of the social media learning platforms (Venkatesh et al., 2003)
FC2	I have the knowledge necessary for the use of the social media learning platforms (Venkatesh et al., 2003)
FC3	The social media learning platforms are compatible with other technologies I use (Venkatesh et al., 2003)
FC4	The use of the social media learning platforms fits my learning style (Lakhal et al., 2013)
FC5	The use of the social media learning platforms is compatible with all aspects of my studies (Moore & Benbasat, 1991)
FC6	I think that using the social media learning platforms fits well with the way I like to learn (Moore & Benbasat, 1991)
IV1	Using the social media learning platforms is a good idea (Venkatesh et al., 2003)
IV2	Using the social media learning platforms makes learning activities more interesting (Venkatesh et al., 2003)
IV3	Using the social media learning platform is a pleasant experience. (Davis et al., 1992)

IV4	Using the social media learning platform is fun (Chiu & Wang, 2008; Venkatesh et al., 2003)
BI1	I intend to use the social media learning platform in the next semesters (Venkatesh et al., 2003)
BI2	I predict that I would use the social media learning platform in the next semesters (Venkatesh et al., 2003)
BI3	I plan to continue to use the social media learning platform in the next semesters (Venkatesh et al., 2003)
UB1	I really like to use the social media learning platforms as compared to traditional learning. (Venkatesh et al., 2003)
UB2	I really enjoy using the social media learning platforms as compared to traditional learning. (Venkatesh et al., 2003)
UB3	I will encourage my circle to use the social media learning platforms. (Venkatesh et al., 2003)