



## Factors Influencing Behavioral Intention Using Educational Video Sharing Site for Learning

Sazanah Md Ali<sup>1\*</sup>, Ahmad Zamzuri Mohamad Ali<sup>2</sup> and Roslinda Ramli<sup>1</sup>

<sup>1</sup> International Islamic University College Selangor, Selangor

<sup>2</sup> Sultan Idris Education University, Perak

\*Corresponding author: [sazanah84@gmail.com](mailto:sazanah84@gmail.com)

KEYWORDS	ABSTRACT
Educational Video Sharing Site New Media Technology Acceptance Model	<p>The purpose of this study is to analyze the psychological, social, technological and institution factors influencing the behavioral intention to use educational video sharing site by focusing on the acceptance and use of the site for educational purposes. The Technology Acceptance Model (TAM) was used as the basic model in this study, as well as the advanced model built in accordance with the needs of the research being developed. Several series of video tutorials on software learning in the form of screencast were developed and uploaded to the focused educational video sharing site (LearnSoftware) developed for the purpose of this study. A questionnaire was used as a study instrument. This is a quantitative study where data were collected from 294 students pursuing Multimedia studies (major and minor) in 5 public higher learning institutions (PHLI). Through the multiple regression analysis conducted, it was found that psychological and social factors were the main influence of students' intention to use the focused educational video sharing site, while technological and institution factors had no influence. In conclusion, the findings of this study can benefit educational institutions, students and educators as well as video sharing site developers in understanding students' behavior towards accepting and using the new technology introduced.</p>

### 1.0 Introduction

The use of new media such as video sharing sites has become an important platform in the effective teaching and learning process. However, its application in open social media platforms has the potential to have a negative impact on students. In this regard, it is appropriate for a video sharing site specifically in the form of education to be developed for the purpose of more meaningful learning. It is also seen in line with the development of digital technology and interest in new media among young people today [1] In addition, the provision of this video sharing site

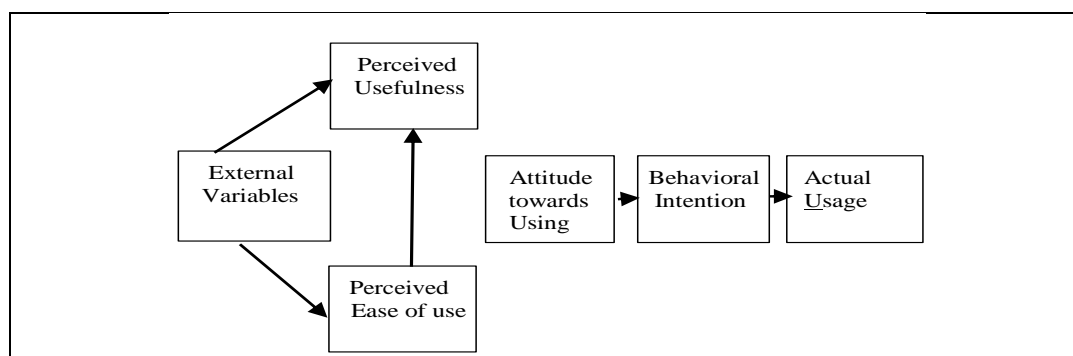
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not only solves the problem of storage and transfer of large sized learning videos among teachers and students, but it also provides a mobile learning environment. Students can now access learning materials anywhere and anytime, in line with modern learning methods in today's new media technology era. This study were develop a video sharing site that is specifically in the form of education, as well as look at the level of student acceptance from various aspects of the site. This video sharing site is used for learning various software tutorials in the form of screencast videos. It was developed based on the YouTube video sharing site with more specific features for the purpose of a more formal software tutorial learning environment. Several appropriate functions and features are added to the site to adapt it to the teaching and learning activities of software tutorials, such as entering software categories. For the purpose of the study, a series of application software screencast video tutorials were produced and uploaded to the site. This study were investigate on the factors that influence student acceptance of the use of video sharing sites for educational purposes by using the Technology Acceptance Model or Technology Acceptance Model (TAM) as the basic model.

## 2.0 Literature Review

### 2.1 Technology Acceptance Model

TAM model basically contains two main constructs, namely perceived usefulness and perceived ease of use. Attitude and behavioural intention to use are also variables that are present in the TAM model. The basic model needs to be further developed by incorporating external factors in line with studies conducted to strengthen the findings [2]. The basic TAM model is as shown in Figure 1 below.



**Figure 1:** Technology Acceptance Model

To build the technology acceptance model of educational video sharing sites in this study, several external factors were added, in accordance with the context of the study, namely psychology factors, social factors, technology factors and institutik on factors [2][3][4]. More specifically for the purpose of this study, the analysis of these external factors will be studied in terms of their impact in influencing intentional behavior or intention to use the educational video sharing site among students in observing the acceptance towards the site.

## 2.2 External Factors (variables)

### 2.2.1 Psychology factors

Psychology factors are the internal factors of an individual in making a decision. Enjoyment in the context of technology acceptance is defined as the appreciation gained through the use of technology or services that can demonstrate consumers' satisfaction [5] Whereas [6] defines pleasure as users' perception of the enjoyment gained from using the system. Enjoyment has also been found to contribute

significantly to students' behavioral intention towards e-learning sites [7]. In this study, the self-efficacy factor refers to students' self-confidence in using the LearnSoftware video sharing site, where students with high self-efficacy will feel confident in their ability to use the site for the purpose of learning software tutorials, and thus consider the site useful and easy to use. Whereas students with low self-efficacy will find the LearnSoftware site to be difficult to use and not useful. Based on the literature review, the hypotheses development is:

Ha<sup>1</sup> : There is a significant positive relationship between psychology factors and the behavioural intention towards the educational video sharing site.

### **2.2.2 Social Factors**

Social factors are important in influencing the acceptance and rejection of technology. Social influences are related to changes in the feelings, thoughts, attitudes and behavior of an individual as a result of interactions with other individuals or groups of people [8]. In this study, social influence factors comprising subjective norms and images were added as an extension of the TAM model in determining the acceptance and rejection of LearnSoftware educational video sharing site. Subjective norms are social influences that are taken into account in determining the acceptance or rejection of a technology introduced. For the purpose of this study, lecturers and classmates are individuals around a student who can determine the acceptance or rejection of the student in using the LearnSoftware educational video sharing site for learning purposes. Image is one of the measures in the acceptance and use of technology. Image is defined as the belief that the use of an innovation can enhance one's self-image or social status [9]. In the context of the acceptance and use of online learning system, image can mean that the student who uses the system appears to be smart and prestigious. These factors can influence students' attitudes and behaviors to use relate the image factor as a student's perception of the use of a given innovation to enhance their social status. Based on the literature review, the hypotheses development is :

H<sup>2</sup> : There is a significant positive relationship between social factors and the behavioural intention towards the educational video sharing site.

### **2.2.3 Technology Factors in the Acceptance of Technology**

Technology factors are seen as crucial in studying the acceptance towards the technology being developed. Previous studies found that technology factors such as system quality, information quality and service quality could determine the acceptance and rejection of a developed system [10] For the purpose of this study, technology factors such as system quality and content features were taken into account in measuring students' acceptance of the LearnSoftware video sharing site developed. Features such as the quality of video screencast produced, sound recording quality, loading speed and internet access were studied in analyzing the behavior and acceptance of students towards the site. Content feature is one of the important factors in observing users' acceptance and access to online learning sites [11]. For the purpose of this study, the content features refer to the video tutorial features of screencast software developed. Audio and video are fundamental elements used in the production of screencast video. The use of both of these multimedia elements and the presentation style of video tutorials will be considered in determining the impact of this content feature on students' acceptance of the

LearnSoftware educational video sharing site. Based on the literature review, the hypotheses development is :

H<sup>3</sup> : There is a significant positive relationship between technology factors and the behavioural intention towards the educational video sharing site.

#### **2.2.4 Institution Factors**

The development of a technology related to the online learning environment at institutions generally involves the support of various parties such as the department of administration, academic and student affairs. In particular, the facility resources and technical support are critical to ensuring success in the use and acceptance of the system [12] For the purpose of this study, the provision of infrastructure facilities such as the provision of labs with internet access as well as the provision of extensive and efficient wifi facilities are important factors in determining students' acceptance and rejection to use the LearnSoftware educational video sharing site for learning purposes. For the purpose of this study, in supporting and encouraging students to use LearnSoftware video sharing site, the provision of complete Information Technology infrastructure facilities such as computer labs, internet facilities and expanded wifi networks at the campus, are important to determine the usage rate of the site. In addition, high speed internet should also be provided to streamline the learning process through LearnSoftware video sharing site which mostly involves the use of video elements. Facilitating condition provided by institutions can have an impact on students' behavior in the use of an online learning system developed [13]. As for the development of LearnSoftware video sharing site, website administrators are responsible for providing technical support to students who use this site for the purpose of learning the various screencast software tutorials provided. Meanwhile, the Information Technology center at the institution is responsible for providing technical assistance in terms of Internet access and computer hardware maintenance. Based on the literature review, the hypotheses development is :

H<sup>4</sup> : There is a significant positive relationship between institution factors and the behavioural intention towards the educational video sharing site.

### **3.0 Methodology**

This study used a quantitative approach by conducting a survey methodology. The study instrument used was a questionnaire developed based on a previous questionnaire that applied TAM model in studies on the acceptance of new media, e-learning, social media and education. The study subject was the students of Bachelor of Multimedia (major or minor) programme at Public Higher Learning Institutions (PHLI). The students were selected based on the study requirements that the subjects were using video sharing sites to learn multimedia software tutorials. The study population was 20 PHLIs all across Malaysia that had been identified to offer Multimedia Programmes (major and minor). Of the total population, 5 PHLIs had agreed to collaborate in this study, namely Universiti Utara Malaysia (UUM) and Universiti Pendidikan Sultan Idris (UPSI) of the north zone, Universiti Putra Malaysia (UPM) of the central zone, as well as Universiti Sains Islam Malaysia (USIM) and Universiti Teknikal Malaysia Melaka (UTEM) of the south zone. The total population of the study is as in Table 1 as obtained from the administrative division of the respective universities. This study used a probability sampling procedure because the subject and samples had all the characteristics of the study population. Based on the population of 1260 students taking Bachelor Degree of Multimedia (major and minor) programme at the five Universities, 294 students were selected to become the study samples as in Table 1 below:

**Table 1:** Total of Study Sample

Universities	Sample
1. Universiti Utara Malaysia (UUM)	51
2. Universiti Pendidikan Sultan Idris (UPSI)	60
3. Universiti Putra Malaysia (UPM)	43
4. Universiti Sains Islam Malaysia (USIM)	80
5. Universiti teknikal Malaysia Melaka UTEM)	60
TOTAL	294

#### 4.0 Analysis and Results

The data was analysis using SPSS software. Correlation analysis was performed to show the strength of the relationship between the two variables. Cronbach's Alpha test was performed to identify the reliability of each scale. Based on the test results, the value of Cronbach's Alpha construct is above 0.6. and is calculated to have high reliability as a research instrument. The data analysis technique used is multiple regression analysis.

**Table 2:** The Dependent Variable Regression Coefficient

Coefficients <sup>a</sup>						
	Model	Unstand. Coefficients		Stand. Coefficients Beta	t	Sig.
		B	Std. Error			
1	(Constant)	0.62	0.21		3.02	0.00
	Psychology_Factors	0.78	0.05	0.64	14.37	0.00
2	(Constant)	0.37	0.21		1.71	0.09
	Psychology_Factors	0.67	0.06	0.55	10.87	0.00
	Social_Factors	0.20	0.06	0.18	3.48	0.00
3	(Constant)	0.40	0.24		1.70	0.09
	Psychology_Factors	0.68	0.07	0.56	9.82	0.00
	Social_Factors	0.21	0.06	0.18	3.49	0.00
	Technology_Factors	-0.02	0.06	-0.02	-0.36	0.72
4	(Constant)	0.39	0.24		1.59	0.11
	Psychology_Factors	0.68	0.07	0.56	9.53	0.00*
	Social_Factors	0.20	0.06	0.18	3.37	0.00*
	Technology_Factors	-0.03	0.07	-0.02	-0.43	0.67
	Institutional_Factors	0.012	0.07	0.02	0.28	0.78

a. Dependent Variable: Behavioral\_Intention

Table 2 shows two independent regression coefficients of the variables, namely the psychology factors ( $\beta = 0.56$ ,  $t = 9.53$ ,  $p < 0.05$ ) and social factors ( $\beta = 0.18$ ,  $t = 3.37$ ,  $p < 0.05$ ), are significant and are the factors in behavioral intention on educational video sharing sites, while technology and institution factors are not significant at the  $p > 0.05$  level. The results of the data analysis showed that significantly, two independent variables, namely the psychology factors ( $\beta = 0.56$ ,  $t = 9.53$ ,  $p < 0.05$ ) and social factors ( $\beta = 0.18$ ,  $t = 3.37$ ,  $p < 0.05$ ) were factors in behavioral intention on educational video sharing sites. Both factors accounted for 44% ( $r = 0.66$ ) of the variance in behavioral intention [ $F(4, 289) = 56.33$ ,  $p < 0.05$ ]. The analysis showed that significantly, the psychology factors ( $\beta = 0.64$ ,  $t = 14.37$ ,  $p < 0.05$ ) alone accounted for 41% ( $r = 0.64$ ) of the variance in the perceived usefulness [ $F(1, 292) = 206.57$ ,  $p < 0.05$ ]. The combination of the two psychology ( $\beta = 0.55$ ,  $t = 10.87$ ,  $p < 0.05$ ) and social ( $\beta = 0.18$ ,  $t = 3.48$ ,  $p < 0.05$ ) factor accounted for 44% ( $r =$

0.66) of the variance in perceived usefulness. [ $F(2,291) = 113.25, p < .05$ ]. In conclusion, the hypothesis results are as shown in Table 4 below.

**Table 3: The Result of the Hypothesis**

No.	Hypothesis	Result
Ha <sup>1</sup>	There is a significant positive relationship between psychology factors and the behavioural intention towards the educational video sharing site.	Accepted
Ha <sup>2</sup>	There is a significant positive relationship between social factors and the behavioural intention towards the educational video sharing site.	Accepted
Ha <sup>3</sup>	There is a significant positive relationship between technology factors and the behavioural intention towards the educational video sharing site.	Rejected
Ha <sup>4</sup>	There is a significant positive relationship between institution factors and the behavioural intention towards the educational video sharing site.	Rejected

## 5.0 Discussion

The results showed that the psychology factors (enjoyment and self-efficacy), and social factors (subjective norms and image) had a significant positive relationship with students' behavioral intention to use the LearnSoftware educational video sharing site, while the technology factors (system quality and content features) and institution factors (provision of facilities and technical support) did not influence students' behavioral intention on the LearnSoftware site. Based on previous literature review, the definition of behavioral intention is a measure of an individual's decision to perform or not perform a behavior in the future [14] In the case of this study, it means that decisions made by students whether to accept or reject the use of the LearnSoftware educational video sharing site.

For psychological reasons, these factors have prompted students to make the decision to accept the LearnSoftware educational video sharing site for the purpose of software tutorials. The desire or intention to use and accept this site was due to the self-efficacy and enjoyment factors of using this site which had influenced the psychology of students to continue using this site. In addition to the psychology factors, the findings of this study also showed that the social factors also influenced students in making the decision to use and accept the LearnSoftware site. Based on previous literature review, subjective norms, which are social influences that are taken into account in determining the acceptance or rejection of a technology introduced, are the influence of important people in an individual's life who can influence the individual to make a decision on a behavior [15] According to this definition, it means that the influences from friends or lecturers, administrators and tutors have encouraged students to use this site because they feel it is important for them to use the site as well if the people around them like friends and lecturers use it as well. Furthermore, the findings of this study showed that technology factors and institution factors did not influence students in making the decision to use this educational video sharing site for software tutorial learning purposes. As for the technology factors, the availability of a variety of alternative sites for the purpose of learning software tutorials that can be used by students in case they face an interruption in video quality or video link on LearnSoftware site, resulting in technology factors have no influence over students' decision to use this site. In terms of institution factors, the provision of facilities and technical support for the purpose of using the LearnSoftware site was not taken into account by the students in making the decision to use the LearnSoftware site because of the current mobile learning style factor, which is that students own their laptops and have access to this site from anywhere and at any time. Therefore, the provision of computer lab facility, hardware and so on was not taken into consideration by the students in making the decision to use this site.

The findings of this study have also been found to be consistent and supported by many of previous studies that had found that factors such as psychology and social could influence students' attitudes towards using educational-based websites such as e-learning ([16] & [17]). Although this study found that the psychology factors had an influence over students' behavioral intention, a study by [18] found that psychology factors such as enjoyment were not significant factors in influencing students' decision to use educational sites. This is because students consider the concept of enjoyment to be about entertainment, chatting, online shopping and others. Students do not feel that educational sites can be fun because they are being used for learning activities. Similarly, even though the findings of this study found that technology factors do not influence students' behavioral intentions, there are previous studies that have found that technology factors influence students' acceptance and rejection of educational sites. According to [19], technology factors such as the quality of a website are important factors in influencing students' decision to use the educational site introduced.

## 6.0 Conclusion

As a conclusion, the findings of this study have an implication towards the technology acceptance model, which is to develop an extension for the technology acceptance model, called the focused educational video sharing site acceptance model, as well as provided an implication in terms of practical for educational institutions and video sharing site developers in practicing to prepare a focused video sharing site that meets the needs of students. In addition, the provision of an easy-to-use educational video sharing site will also benefit the students, faculty and the educational institution itself. Finally, this study contributes to the general knowledge regarding individual's behavior in making a decision to either accept or reject a new technology being introduced.

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## References

- [1] Snelson, C. (2008). Web-based video in education: possibilities and pitfalls. Paper presented at Worldwide Online Conference 2008, Hawaii. Retrived from <https://www.learntechlib.org/p/43828>
- [2] Alenezi, A.R. (2011). An adoption of the TAM model to determine factors affecting students' acceptance of e-learning in institutions of higher education in Saudi Arabia, Ph.D. dissertation, Universiti Utara Malaysia, Kedah, Malaysia,
- [3] Noraihan, M., & Mohd Sobhi (2013). Pengaruh faktor organisasi dan faktor teknologi terhadap penerimaan media sosial sebagai medium pemasaran penginapan bajet. Terengganu International Tourism Conference 2013 (TITC2013), Terengganu, pp. 1-15.
- [4] Park, S. Y. (2009). An analysis of the technology acceptance model in understanding university students' behavioral intention to use e-learning. Educational Technology & Society, Vol 12 (3), 150-162
- [5] Heijden, V.D. (2004). User acceptance of hedonic information systems. MIS Quarterly, Vol 12 (28), 695- 704.
- [6] Alenezi, A. R., Abdul Karim, A. M., & Arsaythamby, V. (2010). An empirical investigation into the role of enjoyment, computer anxiety, computer self-efficacy and internet experience in influencing the students' intention to use e-learning: A case study from

- saudi arabian governmental universities. The Turkish Online Journal of Educational Technology. Vol 9 (4). 22-34.
- [7] Sun, Y.J., Zhou, T. & Li, J.J. (2013). An empirical analysis on the technology acceptance of high quality course website in higher education. The Chinese J. in ITC Educ., Vol 21(1), 29-32.
- [8] Ajzen, I & Fishbein, M. (1975). Belief, attitude, intention and behavior: An introduction to theory and research. Journal of Leisure Research, Vol 21(4), 114-137
- [9] Farahat, T. (2012). Applying the technology acceptance model to online learning in the Egyptian Universities. Social and Behavioral Sciences, Vol 64, 95 - 104
- [10] Park, S. Y. (2009). An analysis of the technology acceptance model in understanding university students' behavioral intention to use e-learning. Educational Technology & Society, Vol 12 (3), 150- 162.
- [11] Almarabeh, T, Mohammad, H., Yousef, R. & Majdalawi, Y.K.(2014). The University of Jordan e- learning platform: State, students' acceptance and challenges. Journal of Software and Application, Vol 7 (12), 999-1007.
- [12] Venkatesh, V., Morris, M.G., Davis, G.B., and Davis, F.D. (2003). User acceptance of information technology: Toward a unified view. MIS Quarterly, Vol 27 (3). 425-478.
- [13] Kocaleva, M., Zdravev, Z. & Stojanovic, I. (2015). Model of e-learning acceptance and use for teaching staff in Higher education institutions. International Journal Mod. Educ.Comput. Sci. Vol 7(4), 23-31.
- [14] Zabukovsek, S.S., & Bobek, S. (2013). TAM-based external factors related to ERP solutions acceptance in organizations. International Journal of Information Systems and Project Management, Vol 1 (4), 25-38.
- [15] Farahat, T., (2012). Applying the technology acceptance model to online learning in the Egyptian Universities. Social and Behavioral Sciences, Vol 64, 95 - 104.
- [16] Tarhini, A., Hone, K. & Liu, X. (2013). Factors affecting student's acceptance of e-learning environments in developing countries: A structural Equation Modeling approach. International Journal of Information and education Technology, Vol 3 (1), 54-58.
- [17] Punnose, AC. (2012). Determinants of intention to use elearning based on the technology acceptance model. Journal of Information Technology Education: Research, Vol 11, 301-337.
- [18] Hussein, Z. (2015). Explicating students' behaviours of e-learning: a viewpoint of the extended technology acceptance. International Journal of Management and Applied Science, Vol 1 (10), 68-73.
- [19] Sharma, S.K., & Chandel, J.K. (2013). Technology acceptance model for the use of learning through websites among students in Oman. International Arab Journal of e- Technology, Vol 3 (1), 44-49.