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# Leading to Intention:The Role of Attitude in Relation to Technology Acceptance Model in E-Learning

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## Abstract

Malaysian government has given attention to the burgeoning of E-learning due to the excessive demand in line with technology advancement for tertiary education in the country. However, the intensity of its usage is not very remarkable, there is a need to understand student's attitude on the use of the e-learning system from the perspectives of the Technology Acceptance Model. The objective of the study is to investigate the attitude of university students about the use of E-learning based on the Technology Acceptance Model. This research is to analyze the relationship of university students' intention to use e-learning with three antecedents include attitude, perceived usefulness and perceived ease of use. A survey method was used to 151 students by using a questionnaire as a tool. Participants were selected using random sampling. The informed consent was obtained from participants as for ethical consideration. Findings indicated that attitude was a significant predictor towards student's intention to use E-Learning. As a result, it is seen that students' attitude plays an important role in contributing to the intention to use e-learning system. The outcome of this study is expected to improve and upgraded E-learning system to be beneficial according to the needs of the students.

*Keywords:* Attitude; E-learning; Intention to use; Technology Acceptance Model

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## 1. Introduction

Recently, with the burgeoning of information technology, university program is vital in integrating technology in teaching and learning. With the university students who are majority generation Y and generation Z and they were known as digital natives, it is expected that using technology in teaching and learning is the most appropriate and wise decisions done by university to implement the online learning (Hussein, 2015). According to Byoung-Chan, Jeong-Ok and In (2009) mentioned that the paradigm shifting in the field of education is significant from teacher-centered to learner-centered education during the information age. Later on, the introduction of E-learning platform leads to several issues emerged such as the appropriateness of teaching methods, design of the technological infrastructure the interaction of students with the technology (Duffy & Kirkley, 2004; Tselios, Avouris, & Komis, 2008b; Tselios, Katsanos, Kahrimanis, & Avouris, 2008a). E-learning can be defined as a learning through electronic devices using technology as a medium for online interaction and to access information (Wu et al., 2012). E-learning was included as one of the learning styles together with the computer-aided learning, remote learning, and on-line learning (Ho & Dzeng, 2010). According to Shipee & Keengwee (2014), the culture of equal participation among students and teachers can be improved by using the E-learning and this can lead to greater success in learning effectiveness and efficiency. Thus, the integration of the E-learning technologies in education and the students' perceptions, attitude and intention to use the e-learning become so important to be assessed (Ozdamli & Uzunboylu, 2014). To fill in the study gaps, this study will explore the students' intention to use E-learning in relation to attitude based on the Technology Acceptance Model.

## 2. Literature Review

### 2.1 Technology Acceptance Model

Davis (1986) proposed that Technology Acceptance Model (TAM) as one of the well-known models related to technology acceptance and use. The user behavior of information technology can be predicted and explained by using TAM as a theoretical model (Legris, Ingham, & Collerette, 2003). This model has proven significantly valuable to understand which factors predict acceptance of new technology and it provides a basis with which one traces how external variables influence belief, attitude, and intention to use (King and He 2006). TAM was constructed based on the two cognitive beliefs called perceived usefulness and perceived ease of use. The basis of the model is providing other determinants to influence belief, attitude, and intention to use. TAM has influenced user's behavioral intentions and attitude either directly or indirectly in order to assess user's actual use of the technology.

The adoption and the usage of E-learning have been examined using TAM as a model in many previous studies. Selim (2003) stated that there was a need to investigate TAM with web-based learning. Saadé, Nebebe, and Tan (2007) suggested that in order for the E-learning system to be successful, it is important to assess the university students' participation and involvement based on their acceptance behavior and TAM was used as a solid theoretical model. The validity of this model can be extended in the E-learning context. The study concluded that student's attitude plays an important role in improving efficiency of e-learning system.

### 2.2 Attitude towards E-Learning

Triandis (1971) defines attitude as individual characteristics which portraits either positive or negative behavior and reflection of feeling and knowledge to certain concept or subject. According to Mantle-Bromley (1995) in the psychology study that attitude consists of three components such as affect, cognition and behavior which refer to people preferences level, person's knowledge about the attitudinal object and reactions and intention regarding the object respectively. Bruess (2003) posited in his study on the adoption of instructional technology that attitudes play a significant role on influencing student's learning in the classroom. In addition, based on the case study at the Bangkok university, Wangpipatwong (2008) affirms that the intention and perception of using e-learning is influenced by students' attitude towards computer.

In a case study done in Malaysia by several groups of researchers in E-learning technology using TAM (Ahmed et al, 2011; Malathi and Rohani, 2011; Hussein, 2015) proved that university students had a positive attitude and TAM