



Original Article

Analysis on the acceptance of Edmodo as instructional tool using technology acceptance model (TAM) amidst COVID-19 pandemic

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ABSTRACT

The main purpose of this research study was to analyze the acceptance of Edmodo as an instructional tool using the Technology Acceptance Model (TAM) as to perceived usefulness, perceived ease of use, behavior intention, and actual use amidst COVID-19 pandemic. This research study utilized descriptive research design and quantitative analysis. Findings revealed that the faculty acceptance of the utilization of Edmodo as an instructional tool as to perceived usefulness, perceived ease of use, behavior intention, and actual use is acceptable.

KEYWORDS: *Edmodo, Technology Acceptance Model, Instructional Tool, Faculty, Acceptance*

1 INTRODUCTION

Since March 2020, 27.2 million students have been affected by the closure and shutdown of all educational institutions, including Higher Education Institutions (HEIs) (Allego, 2020), in the hopes of strict implementation of varying community quarantine put in place by a newly created and unified government body called the Inter-Agency Task Force on Emerging Infectious Diseases (ATF-IED). In terms of higher education, the Commission on Higher Education (CHED) seems to have issued supporting statements implying a “continuance of learning” (Biana et al., 2020). As the pandemic's situation continues to deteriorate, new issues and obstacles have emerged. All factors within the teaching-learning process shall have their issues and difficulties of varying degrees including the financial burden to be able to cope with the so-called required “continuance of learning” according to CHED.

Philippines' neighboring countries like Malaysia, India, China, and Singapore had their strategies in place focused on the installation of online learning facilities in both government and private education institutions (Mulvanti et al, 2020). The same has been

happening to the rest of the world implementing their preparations in the transition from traditional to Digital Learning facilities (Basilaia & Kqvadze, 2020; Marban & Mulenga, 2020). It has become an urgent need to explore other innovative learning modalities that will facilitate migration from traditional to flexible learning options. As learners are differently situated in terms of time, pace, and place, these options allow customization of delivery modes responsive to students' need for access to quality education. This will also allow students to select the distribution method that is most convenient for them as early as the time of enrolling. Flexible learning refers to the individuals who are keen on various methods of adapting in particular e-learning, m- learning, and web-based learning (i.e., adaptable learning gives students decisions about where, when, and how learning happens) (Joan, 2013). It deals with the plan and delivery of programs and learning intercessions that address learners' needs as to pace, methods, place, and results of learning (CHED Memorandum Order Number 04, 2020). The implementation of flexible learning as a delivery mode shall be adopted beginning Academic Year 2020- 2021 and maybe extended upon consultation with stakeholders concerned and upon review of the Commission (CHED Memorandum Order Number 04, 2020).

The President Ramon Magsaysay State University is known as PRMSU, is a state university in Zambales. The university is named after President Ramon Magsaysay, the province's greatest son and former President of the Republic of the Philippines. As a comprehensive state university, the President Ramon Magsaysay State University (PRMSU), shall primarily provide advance and higher professional, technical and special instructions in education and technology, engineering and architecture, agriculture, forestry, and fisheries, public administration and management, business and accountancy, economics and finance, tourism, hospitality and culinary management, creative industries, humanities, arts and sciences, information and communications technology, maritime education, law and legal management, medicine and health-related programs, peace and security programs and other related fields of study (Republic Act 11015, Section 2). The PRMSU implemented the Strategic Framework for

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p-ISSN: 2599-4875 e-ISSN: 2599-4980

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Flexible Teaching and Learning with Board Resolution No.1181 Series 2020. The PRMSU ensures to deliver a quality of education by providing instruction to the students, addressing their needs, situations, and resources making higher education accessible despite the present crisis. Online teaching and learning approach and modular approach are two (2) flexible learning approaches that have been identified by the University for the implementation.

The faculty of the College of Communication and Information Technology (CCIT) welcomed the paradigm change of the higher education setting in the last semester of this Academic Year 2021-2022 to continue to provide quality education to students. Synchronous and asynchronous approaches are utilized in online teaching and learning. Learners can go on to an e-learning environment at any time and download papers or send messages to teachers or peers using asynchronous e-learning. When opposed to synchronous communication, students may take more time honing their contributions, which are often deemed more insightful (Hrastinski, 2007). The CCIT faculty used Edmodo as a teaching tool. Edmodo is an asynchronous instructional software platform (Ingwersen, 2018). Edmodo is a cloud-based learning management system that facilitates collaborative learning by allowing users to share materials, communicate, and administer classrooms. It provides infinite content storage, allowing administrators to spend less time dealing with paperwork. Edmodo allows teachers and training managers to store, assign, schedule, and track information in one central location, allowing them to run their digital classrooms more efficiently. Edmodo is a learning framework that integrates social media such as Facebook into the learning and teaching process, making it easier and more successful in terms of teaching engagement and assignment (Munib et al., 2017).

Edmodo's popularity and widespread use around the world cannot be overstated. Since its start in 2008, it has attracted an enormous number of people. Edmodo estimated that over 63 million individuals were actively working for educational reasons in 2016. (Mokhtar, 2018). One of the most popular options for adoption in the educational process is the Edmodo network. It's an academic communication network that connects teachers with students and their parents by allowing them to deliver their courses online (Cheong, 2010). According to Kumelashvili (2016), meeting the diverse requirements of students in a classroom is the toughest task for a teacher. Edmodo appears to address this issue by allowing instructors to submit assignments online, allowing it to be differentiated. Differentiation of assignments allows students to study more successfully, while testing, quizzes, and polls allow professors to track their progress. Learners' feeling of community is strengthened by Edmodo, which makes them feel

appreciated and important. Students integrate their interests, coursework, and life experiences, gaining a greater understanding of the goal of each assignment and the entire project. Teachers use Edmodo to create a motivating environment in which supporting people push learners slightly beyond their comfort zones so that they can study independently. Kumelashvili (2016) discovered that using this program encourages students to reduce the amount of time they spend between activities. Edmodo also allows users to write comments on projects and resources, as well as share their thoughts and experiences. Edmodo can easily overcome this dilemma when it comes to controlling a large class during the teaching and learning process. Joko and Septia (2018) used Edmodo to examine the construction of a learning management system. Their findings show that using Edmodo improves students' learning skills since it allows them to readily exchange media and up-to-date materials.

The technology acceptance model (TAM) is one of the popular models, which helps to model how peoples come to admit and utilize new technologies. The TAM is the most widely employed and best-known model to measure acceptance of various technologies (Barchino et al., 2019). The model focuses on factors determining behavioral intention to use new technologies from the end user's perspective (Becker, 2016; Chen et al., 2015; Hone et al., 2014; Wu & Zhang, 2014). TAM comprises core variables of user motivation: perceived ease of use, perceived usefulness, and attitudes toward technology. Of these elements, perceived usefulness and perceived ease of use are considered as a principal determinant that directly or indirectly explains the behavioral intention to use (acceptance) new technology. It was successfully applied to a multitude of technologies such as social media (Abraham et al., 2019; Dumpit & Fernandez, 2017), virtual learning environments (Kurt & Tingoy, 2017), learning analytics visualization (Economides & Papamitsiou, 2015), and gamification (Ahmad et al., 2018).

Hence, the researcher is directed to analyze the acceptance of Edmodo as an instructional tool using TAM in terms of perceived usefulness, perceived ease of use, attitude toward using, and intention to use amidst COVID-19 pandemic.

2 MATERIALS AND METHODS

In its analysis, this research study used a descriptive research design and a quantitative approach. Twenty (20) or one hundred percent (100%) of the total population of the CCIT faculty served as the respondents. The respondents were chosen in the conduct of the study because they utilized Edmodo in their asynchronous online classes last First Semester

Academic Year 2021- 2022. The respondents are knowledgeable on the features and usage of Edmodo. The respondents are teaching core and major subjects to the Information Technology and Computer Science students. The researcher considered the voluntary participation of respondents in the study. The respondents participated based on informed consent. The researcher considered the privacy and anonymity of the respondents. This study was conducted at the College of Communication and Information Technology (CCIT) of President Ramon Magsaysay State University (PRMSU), Main Campus which is located in Iba, and the capital town of Zambales, Philippines. The instrument adopted was adopted the TAM constructs consisting of four (4) aspects: perceived usefulness, perceived ease of use, attitude toward using, and intention to use and slightly modified to better match the study. The instrument has only one part that deals with the level of acceptance using the TAM Model and consists of eighteen (18) items. Exploratory factor analysis and reliability tests were checked using the Cronbach alpha coefficient found to be acceptable of the four (4) aspects. The researcher utilized the Google form as a platform for the questionnaire to collect data from the respondents. The survey- questionnaire was uploaded over the internet for a week. Descriptive statistics such as frequency distribution, percentage, and mean were used in data analysis. The respondents were asked to rate the acceptance on the acceptance of Edmodo using the 4-point Likert Scale (4- Highly Acceptable to 1- Not Acceptable).

3 RESULTS AND DISCUSSION

The faculty acceptance on the Utilization of Edmodo as Instructional Tool is presented in Table.

Table 1. Faculty Acceptance on the Utilization of Edmodo as Instructional Tool

Indicators	Weighted Mean	Descriptive Rating	Rank
Perceived Usefulness	3.14	Acceptable	2 nd
Perceived Ease of Use	3.18	Acceptable	1 st
Behavior Intention	3.10	Acceptable	3 rd
Actual Use	2.85	Acceptable	4 th
Grand Mean	3.07	Acceptable	

The faculty assessed the perceived ease of use as acceptable with a weighted mean of 23.18 (rank 1st); perceived usefulness assessed as acceptable with a weighted mean of 3.14 (rank 2nd); behavior intention assessed as acceptable with a weighted mean of 3.10

(rank 3rd) and on the actual use assessed as acceptable with a weighted mean of 2.85. The computed grand mean on the faculty acceptance on the utilization of Edmodo as an instructional tool is 3.07 with a descriptive rating of acceptable.

The result signifies that Edmodo is easy to operate by the faculty in their teaching process. Similar findings show that technological acceptance increases as the perceived ease of use increases (Huang, 2017; Mohamed, 2016). The perceived ease of use is defined as the extent to which the technology is free of effort when it is used (Benbasat & Moore, 1991). The perceived ease of use of the Edmodo Content Management System is defined as the degree to which the user believes that using ECMS will be effortless. The Edmodo Content Management System in using technology is influenced by several factors. Among them is the technology itself as a student experience of similar technologies. The second factor is the reputation of the technology. A good reputation will convince students about the use of the technology. The third factor is the existence of a support mechanism. This support mechanism is necessary if students are having trouble using technology (Don et al., 2019).

LIMITATIONS OF THE STUDY

The study is limited in terms of the number of respondents who participated in the study. The responses on the acceptance of Edmodo from the students were not included in this study. Only one college was the subject of this research.

4 CONCLUSIONS

The research explored the analysis on the acceptance of Edmodo as an instructional tool using TAM. Based on the findings obtained in the study, the researcher concluded that the faculty acceptance of Edmodo as an instructional tool as to perceived usefulness, perceived ease of use, behavior intention, and actual use is acceptable. The results provide input to the faculty and administrators to the continuance on the utilization of Edmodo in the flexible teaching and learning of the university.

ACKNOWLEDGEMENT

The author would like to thank the College Dean and the faculty of the College of Communication of Information Technology who participated as respondents in the conduct of the study.

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