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Technological Acceptance among College Students in The New Normal

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Abstract

The adoption of technology in the learning process has been extensively researched, focusing on students' level of technological acceptance. This descriptive research study aimed to determine the level of technological acceptance among college students. A standardized questionnaire was administered to randomly selected respondents. Statistical analyses, including frequency, mean, Mann-Whitney U Test, and Kruskal-Wallis Test, were conducted. The results indicated that there were no significant differences in technology acceptance based on gender and age. However, significant differences were observed based on year level and program, with third-year students and those in the DTE program exhibiting the highest level of acceptance. Overall, respondents demonstrated a moderately high level of technology acceptance, with "Intention to Use" obtaining the lowest mean score. To enhance students' understanding of technology's significance and encourage continued technological advancement, especially during the pandemic, the researchers recommend conducting a seminar titled "Blended Learning: The New Normal and Emerging Technologies.".

Keywords: technology acceptance, college students, descriptive research, blended learning, technological advancement

INTRODUCTION

In the spring of 2020, the outbreak of the COVID-19 pandemic emerged massively as an internationally contagious disease. Due to this, digital technologies have aided support in a variety of dimensions, such as scrutiny of research studies (Radanliev et al., 2020a), pandemic administration (Radanliev et al., 2020b), telecommunications (Camilleri, 2020), and instruction (Crawford et al., 2020). Higher education institutions considered computer-generated spaces an alternative way to face-to-face classroom activities. Thus, the pandemic significantly impacted higher Education (Watermeyer et al., 2020; Nuere & de Miguel, 2020). The most significant technological devices that have changed people's lives today are internet connections, computers, and gadgets. In human history, smartphones, for example, have had the most significant impact on the individual lives of any technological creation (Thakur & Srivastava, 2014, as cited by Wang & Lee, 2020). The internet, in particular, has significantly impacted all aspects of human life due to information technology's rapid advancement. With this, previous studies have been conducted to explore the technology acceptance level. Nevertheless, it has not been clarified and answered clearly, so the exact level of technology acceptance is still unclear.

Therefore, we, the researchers, utilized the TAM Model to investigate further the level of technology acceptance among students at UM Digos College.

Armstrong-Mensah et al. (2020) stated that numerous schools had been forced to shift considerably from on-site classes into digital teaching and student learning, where the teaching process is provided remotely on digital platforms. Moreover, DePietro (2020) states that millions of students were affected by over 300 universities and colleges in the United States. Distance learning is not a new teaching method at Georgia State University's (GSU) School of Public Health (SPH); its unexpected, quick, and impulsive duration affects students' academic levels. Meanwhile, University Canada West offered students the option of continuing their education without regularly attending classes at its campuses. However, the implementation of online courses is not solely dependent on technological performance; instead, students play a role in their learning interaction with course websites designed to supplement their face-to-face classroom learning (Hall, 2008, as cited by NuriAbdalla, 2019).

Thus, the findings of this study may be beneficial to school administrators as a guide in assessing their learning environment in terms of how they encourage students to use technology in mobile learning. Furthermore, it can direct teachers' attention to student outcomes such as performance and aptitude. Through technology, the teacher could instill a new positive outlook and achievement in a student's successful learning process. Finally, it can be helpful for all levels of educational stakeholders, not just future researchers. As a result, future researchers, teachers, and students should be informed of technology acceptance and effective technology use.

LITERATURE REVIEW

The higher education institutions (HEIs) in the Philippines had to switch from on-site to online learning modalities. Students also had to deal with network outages, a lack of digital resources, distracting learning environments, high-cost internet data, health-related issues, and a loss of motivation (Gocotano et al., 2021). Garcia (2017) asserts that there are considerable fluctuations in the area of instruction, ranging from enabling innovative methods for people to study and collaborate (e-learning technology, for example) to revolutionizing teaching and learning procedures due to the swift development of information and communications technology (ICT). While the Philippines' online learning modality is still in its embryonic stage, it has already been driven by prestigious colleges like the University of the Philippines for its UP Open University (UPOU) and the University of Sto. Tomas for their eLearning Access Program (eLeAP) and De La Salle University for integrating the Sakai educational software platform (Firat, 2016).

Accordingly, the Technology Acceptance Model (TAM; Davis, 1986, as cited by Cigdem & Topcu, 2015) has frequently been used in technology acceptance research. Its primary goal is to explain users' attitudes toward technology adoption (Chang et al., 2017). This model was advantageous in its overall framework because it was compatible with several studies examining the factors influencing individuals' readiness to utilize technology (Braun, 2013, as cited by Charness & Boot, 2016). In this research study, the basic framework used for analysis is the Technology Acceptance Model (TAM), in which e-learning experience and technology quality were included as external influences to search for a better model to increase the understanding of students' desire to adopt e-learning. Jones & Kauppi (2018) explained that an expanded TAM model was designed and evaluated in this research study. Individuals' technology acceptance mediates their use of technology as the TAM's core assumptions, which were then specified by two cognitive factors, Perceived Usefulness (P.U.) and Perceived Ease of Use (PEOU). In addition, Suki (2011, as cited by Durodolu, 2016) discovered that the two distinct principles of Perceived

Usefulness and Perceived Ease of Use are closely linked to the attitudes that govern how people use technology.

Besides, UM Digos College also prompted e-learning, resulting in most students experiencing difficulties such as unstable internet connections and a lack of digital devices. The COVID-19 pandemic had an undesirable impact on students' behavioral and emotional functioning, mainly focusing on and reducing problems due to isolation, monetary and health implications, and anxiety (Copeland et al., 2021). Although it is a viable option for universities to change traditional on-site classes, it is not ideal for all students living in far-flung areas or other places with unsteady internet connections and financially disadvantaged learners. Thus, the main issues during the shift to an online learning modality have been technical devices and psychosocial facets (Gonzalez et al., 2020; Khalil et al., 2020; Donitsa-Schmidt & Ramot, 2020).

METHOD

Participants

The target respondents of this study were college students from 1st Year to 4th Year level enrolled in UM Digos College for the Academic Year of 2021 - 2022 from different programs. The respondents were selected randomly from various programs using stratified random sampling. The distribution was based on the proportion of students enrolled in each program. There were 18 respondents from the Department of Technical Program (DTP), 25 respondents from the Department of Arts and Sciences (DAS), 31 respondents from the Department of Accounting Education (DAE), 77 respondents from the Department of Business Administration (DBA), 88 respondents from Department of Criminal Justice Education (DCJE), and 100 respondents from Department of Teachers Education (DTE), with a total of 339 respondents. The respondents included in this survey are only those students who consent to participate in the data gathering.

Instruments

The instruments were composed of a two-part questionnaire. Part 1 dealt with the demographic profile of the respondents in terms of their sex, age, year level, course, and program. Part 2 dealt with the technological acceptance of college students in the new normal, which has four indicators; perceived ease of use (PEOU), perceived usefulness (P.U.), intention to use (INT), and anxiety (ANX). For the PEOU, it comprises of six questions (Alenezi, 2011; Karaali et al., 2011); for PU, it comprises of six questions (Tarhini, Hone, & Liu, 2013;

Karaali, Gumussoy, & Calisir, 2011); for INT, it comprises of six questions (Hung & Chou, 2014; Park, Nam, & Cha, 2012); and for ANX, it comprises of seven questions (Sam, Ekhsan, Othman, & Nordin, 2005). Thus, Cronbach's alpha was 0.927 based on the pilot test results.

In this study, the researchers used a 7-point Likert-type scale to interpret the students' responses to the level of technological acceptance. The scale below was used to analyze the data.

Numerical Value	Range of Means	Descriptive Level	Descriptive Meaning
7	6.16 – 7.00	Very High	The respondents' level of technological acceptance is very high.

6	5.30 – 6.15	High	The respondents' level of technological acceptance is high.
5	4.44 – 5.29	Moderately High	The respondents' level of technological acceptance is moderately high.
4	3.58 – 4.43	Average	The respondents' level of technological acceptance is average.
3	2.72 – 3.57	Moderately Low	The respondents' level of technological acceptance is moderately low.
2	1.86 – 2.71	Low	The respondents' level of technological acceptance is low.
1	1.00 – 1.85	Very Low	The respondents' level of technological acceptance is very low.

Design and Procedure

In this study, the descriptive quantitative research design was used. As explained by Calderon (2006, as cited by Rillo & Alieto, 2018), descriptive research is the process of collecting, examining, categorizing, and organizing statistics regarding existing situations, practices, procedures, trends, and cause effect associations. It also made appropriate and precise explanations of such information with, without, or sometimes with minimal statistical procedures.

To determine the sources of technological acceptance among all college students from different programs, the researchers strictly observed four steps for gathering the data. First, the researchers **asked for authorization** from the Vice President – Branch Operation of UM Digos to allow them to conduct a study. The researchers sought permission to write a letter stating the intentions of assessing the technological acceptance of college students among the selected respondents. The second was the **administration and retrieval of the instruments**. After the approval, the researchers conducted the survey using Google Forms for the respondents. The third was the **tabulation of the responses of the respondents**. After the data was collected from the online survey, the questionnaire with answers was given to the statistician subjected to the tabulation of the responses using the statistical tool Stratified Random Sampling. The fourth was the **analysis and interpretation of the data.** After tabulation, the data were analyzed and interpreted using the mean, frequency, and Mann-Whitney U Test and Kruskal Wallis Test.

FINDINGS AND DISCUSSION

Profile of the Respondents

Table 1. Characteristics of 339 students included in the study

Profile	f	%
Sex		
Male	100	29.5
Female	239	70.5
Age		
19-21 years old	232	68.4
22 years old and above	107	31.6
Year Level		
First Year	89	26.3
Second Year	53	15.6
Third Year	162	47.8
Fourth Year	35	10.3
Program		
DAE	30	8.8
DAS	25	7.4
DBA	76	22.4
DCJE	89	26.3
DTE	100	29.5
DTP	19	5.6

Table 1 shows the profile of the respondents in terms of sex, age, year level, and program. The table signifies that most of the respondents who participated in the data gathering were female. As for age, most of the respondents who participated were ages 19-21 years old. Whereas for year level, most of the respondents who participated were third-year college students.

Lastly, for the program, DTE got the highest frequency.

Level of Technological Acceptance Among College Students in the New Normal

Table 2. ***Level of technological acceptance of college students in the new normal****, n = 339*

Indicators	$\bar{x}$	*SD*
Perceived Ease of Use	5.16	1.258
Perceived Usefulness	5.10	1.272
Intention to Use	5.00	1.356
Anxiety	4.26	1.372
Overall	**4.88**	**1.000**

Perceived Ease of Use. As shown in Table 2, the level of technological acceptance of the respondents concerning Perceived Ease of Use (PEOU) obtained a mean of 5.16. It signifies that the respondents' level of technology acceptance was moderately high. Moreover, it is believed as 'the extent to which an individual perceives that utilizing a certain system will be effortless.' According to Wen and Kwon (2010, as cited by Durodolu 2016), Perceived Ease of Use is based

on the belief that learning a particular skill will be effortless, also known as "effort expectancy." It is also considered an essential factor that either directly or indirectly explains the results of technology acceptance (Marangunic & Granic, 2015, as cited by Scherer et al., 2019). Additionally, Perceived Ease of Use (PEOU) refers to the amount of work someone believes it would require to correlate with competence beliefs directly and uses technology (Scherer, Siddiq, & Teo, 2015, as cited by Scherer et al., 2019). In regards to a prior research study by Daud et al. (2011) and Alrajawy et al. (2017), as cited by Alrajawy et al. (2018), there was found to have a significant difference between perceived ease of use and intention to use mobile learning in which learners intend to use mobile learning if they believe it will benefit and facilitate their learning process.

Perceived Usefulness. As shown in Table 2, the level of technological acceptance of the respondents in terms of Perceived Usefulness (P.U.) obtained a mean of 5.10. It signifies that the respondents' level of technology acceptance was moderately high. Moreover, it is believed as 'the degree to which an individual perceives that utilizing a particular system will develop students' performance.' Perceived Usefulness is also considered an essential factor that either directly or indirectly explains the results of technology acceptance (Marangunic & Granic, 2015, as cited by Scherer et al., 2019). According to Pantano & Di Pietro (2012, as cited by Durodolu 2016) and Teo

(2013, as cited by Durodolu 2016), it is a subjective expectation that specific application systems will improve job performance within a particular organization, also known as "performance expectancy." Also, it is influenced by the user's decision whether or not to accept the specific technology. Many studies have found that perceived usefulness significantly differed from the intention to use. For instance, Alrajawy et al. (2017) explored the facets that impact the intention to use and found that perceived usefulness had a significant difference in the intention to use online learning in Yemen.

Intention to Use. As shown in Table 2, the level of technological acceptance of the respondents in Intention to Use (INT) obtained a mean of 5.00. It signifies that the respondents' level of technology acceptance was moderately high. Moreover, it is believed as "a way to assess how an individual intends to achieve a specific behavior." Mutahar et al. (2018) stated that the best single predictor of actual usage was the intention to use. Thus, it was found that system quality significantly impacts behavioral intention to use technology (Fathema & Sutton, 2013; Park et al., 2012, as cited by Mailizar et al., 2021).

Additionally, previous research examined the effect of system quality on students' and instructors' behavioral intention in adopting e-learning. The potential of the Intention to Use indicator and its specification within structural equation modeling frameworks has gained considerable prominence in the TAM model (King & He, 2006; Marangunic & Granic, 2015, as cited by Scherer et al., 2019).

Anxiety. As shown in Table 2, the level of technological acceptance of the respondents in terms of Anxiety (ANX) obtained a mean of 4.26. It signifies that the respondents are neutral on the level of technology acceptance in anxiety. Moreover, it is believed to be "the inclination of an individual to experience anxiousness, apprehensiveness, or aversiveness when considering utilizing technology. Additionally, many studies have investigated the significant difference between anxiety about perceived usefulness and perceived ease of use. These studies clearly show that anxiety had no significant difference in both or all of these factors (Aggelidis & Chatzoglou, 2009; Chen & Tseng, 2012, as cited by Alrajawy et al., 2018). Also, anxiety was found to have a whether it had either a significant or no significant difference in perceived ease of use

and perceived usefulness, as previously reported by Aggelidis and Chatzoglou (2009) and Chen and Tseng (2009) (as cited by Alrajawy et al., 2018).

It suggests that anxious students may be less likely to use mobile learning than users who are not anxious or have a low level of anxiety when using an online learning modality. The preparation and application will lessen the anxiety associated with using the technologies and supply a better interpretation of their advantage and site features (Lee, Lee, Olson, & Chung,

2010, as cited by Alrajawy et al., 2018; Rajan & Baral, 2015).

Significant Difference in the Level of Technological Acceptance Among College Students as analyzed by Sex

Table 3. Mann-Whitney U test results show the differences in the technological acceptance of college students in the new normal when analyzed by sex

Variables	Group	n	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Asymp. Sig.
Perceived Ease of Use	Male	100	172.82	17282.00	11668.000	-.343	.731
	Female	239	168.82	40348.00			
Perceived Usefulness	Male	100	169.91	16990.50	11940.500	-.012	.991
	Female	239	170.04	40639.50			
Intention to Use	Male	100	162.15	16215.00	11165.000	-.955	.339
	Female	239	173.28	41415.00			
Anxiety	Male	100	175.73	17572.50	11377.500	-.696	.486
	Female	239	167.60	40057.50			
Overall	Male	100	170.02	17001.50	11948.500	-.002	.999
	Female	239	169.99	40628.50			

*p<0.05

Differences were analyzed in terms of sex using the Mann-Whitney U Test. Overall results revealed that there is no significant difference between male and female college students' technological acceptance in the new normal, *Mann-Whitney U (339) = 11948.500, p = .999*. Hence, this result fails to reject the null hypothesis. Mann- Whitney U Test is a non-parametric statistical treatment used to identify the significant difference in the levels of technological acceptance when analyzed by sex. It implies that both sexes have similar levels of technological competence. Moreover, there were no significant sex differences in students' learning satisfaction concerning technology acceptance (Harvey et al., 2017).

Popovich et al. (2008, as cited by Othman & Al Othman, 2016) investigated technological attitudes among college learners. They found out that males' and females' attitudes toward technology and levels of self-reported technological anxiety no longer differ significantly. Other studies found little or no gender differences in technology acceptance variables (Teo et al., 2015 & Whitley, 1997, as cited by Hanham, 2021). According to the findings, there was no significant difference in technology acceptance among genders or racial groups. The results of this study provide a better knowledge of gender and racial grouping perceptions of new information

technology, resulting in a positive social transformation for organizations working to exploit their technology investment through developed communications and knowledge sharing, alleviating user apprehension.

Significant Difference in the Level of Technological Acceptance Among College Students as analyzed by Age

Table 4. Mann-Whitney U test results show the differences in the technological acceptance of college students in the new normal when analyzed by age

Variables	Group	n	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Asymp. Sig.
Perceived Ease of Use	19-21 y.o.	232	169.73	39377.00	12349.000	-.075	.940
	22 y.o. & above	107	170.59	18253.00			
Perceived Usefulness	19-21 y.o.	232	170.48	39551.50	12300.500	-.133	.894
	22 y.o. & above	107	168.96	18078.50			
Intention to Use	19-21 y.o.	232	172.09	39925.50	11926.500	-.580	.562
	22 y.o. & above	107	165.46	17704.50			
Anxiety	19-21 y.o.	232	175.52	40721.50	11130.500	-1.529	.126
	22 y.o. & above	107	158.02	16908.50			
	19-21 y.o.	232	172.59	40041.50	11810.500	-.717	.473
Overall	22 y.o. & above	107	164.38	17588.50			

*p<0.05

An analysis of differences in technological acceptance was also done regarding age. It was found that there is no significant difference between aged 19 to 21 years old and ages 22 years old and above college students' technological acceptance in the new normal, *Mann-Whitney U (339) = 11810.500, p = .473*. Hence, this result fails to reject the null hypothesis. It implies that similar levels of technological competence are observed across the ages. Additionally, prior research studies showed a positive result of an age-related factor in learning software applications (Morris et al., 2005, as cited by Venkatesh et al., 2018). Moreover, Wang et al. (2009, as cited by Terblanche & Kidd (2022) found no significant difference in age in the connection between performance expectancy and intention to use an online learning system in e learning. Chung et al. (2010, as cited by Shin et al., 2022) discovered that age had no significant difference in P.U.'s relationship to participate in online societies.

In addition, regarding age differences in perceived quality, younger adults aged 19 to 25 are expected to be more appreciative of the quality of site functions, designs, and features. Thus, 19 to 25 are more likely to be technologically savvy. Furthermore, because they are more acquainted and associated with new communication technologies, younger adults are expected to perceive online platforms that are easier for them to use (Chung et al., 2010, as cited by Shin et al., 2022).

Significant Difference in the Level of Technological Acceptance Among College Students as Analyzed by Year Level

Table 5. Kruskal Wallis test on the differences in the technological acceptance of college students in the new normal when analyzed by year level

Indicators	Groups	N	Mean Rank	Chi-Square	df	Asymp. Sig.
Perceived Ease of Use	First Year	89	171.75	8.096	3	.044*
	Second Year	53	136.06			
	Third Year	162	180.00			
	Fourth Year	35	170.69			
	Total	339				
Perceived Usefulness	First Year	89	177.51	15.610	3	.001**
	Second Year	53	127.05			
	Third Year	162	184.23			
	Fourth Year	35	150.11			
	Total	339				
Intention to Use	First Year	89	175.67	19.742	3	.000**
	Second Year	53	122.33			
	Third Year	162	187.29			
	Fourth Year	35	147.73			
	Total	339				
Anxiety	First Year	89	172.63	3.991	3	.262
	Second Year	53	179.54			
	Third Year	162	171.98			
	Fourth Year	35	139.67			
	Total	339				
Overall	First Year	89	174.85	17.056	3	.001**
	Second Year	53	126.75			
	Third Year	162	186.47			
	Fourth Year	35	146.91			

*p<0.05

A Kruskal Wallis test on differences showed a significant difference in the college students' technological acceptance of the new normal in terms of year level, *Chi-square (3,336) = 17.056, p = .001*. Table 5 shows that second-year students have the lowest mean rank, followed by fourth-year, first-year, and third-year students. It is true of the indicators of perceived usefulness, perceived ease of use, intention to use, and overall technological acceptance of the students. It may mean that third-year students have the highest level of technology acceptance compared to the other year levels among year levels because technology influences their academic activities in their classes since they were exposed to technology even before the

pandemic. Note that these differences are also significantly found in the specified indicators. Hence, this result rejects the null hypothesis.

Inozu et al. (2010, as cited by Dincer, 2020) discovered that undergraduate college students use technology for learning, but their usage of technology is often ineffective. These findings established that the external computer environment is essential in motivating students to learn (Chen, 2020). These results also proposed that perceived provision from technology use is significant for learners' attitudes and learning motivation toward computer based self-directed learning. It is most likely because they are challenged by the educational landscape's expanding technological modernism (Lai et al., 2016).

Significant Difference in the Level of Technological Acceptance Among College Students as analyzed by a Program

Table 6. Kruskal Wallis test on the differences in the technological acceptance of college students in the new normal when analyzed by a program

Indicators	Groups	N	Mean Rank	Chi-Square	Df	Asymp. Sig.
Perceived Ease of Use	DAE	30	175.42	25.887	5	.000**
	DAS	25	195.50			
	DBA	76	171.88			
	DCJE	89	127.82			
	DTE	100	190.58			
	DTP	19	209.63			
	Total	339				
Perceived Usefulness	DAE	30	154.85	19.550	5	.002**
	DAS	25	161.82			
	DBA	76	175.38			
	DCJE	89	137.65			
	DTE	100	197.51			
	DTP	19	189.95			
	Total	339				
Intention to Use	DAE	30	164.52	19.956	5	.001**
	DAS	25	182.90			
	DBA	76	165.63			
	DCJE	89	137.16			
	DTE	100	199.61			
	DTP	19	177.18			
	Total	339				
Anxiety	DAE	30	178.05	6.912	5	.227
	DAS	25	155.26			
	DBA	76	162.03			
	DCJE	89	187.34			
	DTE	100	169.10			
	DTP	19	132.13			
	Total	339				
Overall	DAE	30	169.65	12.517	5	.028*
	DAS	25	174.72			
	DBA	76	165.36			
	DCJE	89	144.20			
	DTE	100	194.04			

	DTP	19	177.24
	Total	339	

*p<0.05

A Kruskal Wallis test on differences showed a significant difference in the college students' technological acceptance of the new normal in terms of the program, Chi-square (5,334) = 12.517, p = .028. of the new normal in terms of the program, Chi-square (5,334) = 12.517, p = .028. Table 6 shows that the DCJE students have the lowest mean rank compared to the DTP students, who have the highest perceived ease of use indicators. DCJE students have the lowest mean rank for perceived usefulness and intention to use, and DTE students have the highest mean rank. Contrarily, the overall level of technological competence was found to be lowest for DCJE students and highest for DTE students. Hence, this result rejects the null hypothesis.

Pike et al. (2012, as cited by Vladova et al. 2021) asserted that their technological acceptance and learning outcomes are significantly associated with their academic majors' engagement levels. As Pan (2020) stated, DTE students have a more positive inclination toward computer-based self-directed learning and have greater technological acceptance and self-efficacy. The importance of learning motivation illustrates relationships between students' inclination toward technology-based self-directed learning and perceptions of technological situations. Concerning other studies, learners with previous technology experience and universal Internet knowledge are less likely to be anxious, making them more interested in using the technologies.

Moreover, Solomon Osho & Williams (2018) discovered a significant difference in the attitudes of criminology and non-criminology students toward online education instruction. They also discovered a significant difference in perceptions of criminology and non-criminology students regarding online education instruction after taking an online course.

CONCLUSION

The findings suggest that the level of technology acceptance in terms of sex and age signifies no significant difference between males and females and in terms of ages. It simply means that regardless of sex and age, students' technological acceptance was the same. Additionally, both sexes and regardless of age, students used technology in the same manner in their online learning.

Furthermore, the findings suggest that the level of technology acceptance in terms of year level and program signifies a significant difference. Regarding year level, 3rd-year students got the highest level of technology acceptance compared to 2nd-year students. It indicates that 3rd-year students were the first to experience the transition from face-to-face classes to online learning. In contrast, 2nd-year students got the lowest level of technology acceptance, which signifies that they were still adapting and adjusting to the online learning modality. Lastly, in terms of the program, DTE got the highest level of technology acceptance, while DCJE students were the lowest. It signifies that the education students were more inclined to technology. Meanwhile, criminology students got the lowest level of technology acceptance because they were more prone to on-campus learning due to their training and other academic endeavors requiring them to participate personally.

REFERENCES

Aggelidis, V., & Chatzoglou, P. (2009). *Using a modified technology acceptance model in hospitals*. International Journal of Medical Informatics, 78(2), 115–26. https://doi.org/10.1016/j.ijmedinf.2008.06.006.

Alenezi, A. (2011). *An adoption of the TAM model to determine factors affecting students' acceptance of e-learning in institutions of Higher education in Saudi Arabia*. [Doctoral Thesis. Universiti Utara Malaysia].

Alrajawy, I., Norzaidi, M. D., Isaac, O., & Mutahar, A. M. (2017). *Examine Factors Influencing the Intention to use Mobile Learning in Yemen Public Universities*. Asian Journal of Information Technology, 16(2), 287–297.

Alrajawy I., Isaac O., Ghosh A., Nusari M., Al-Shibami A. H., & Ameen A. A. (2018). *Determinants of Student's Intention to Use Mobile Learning in*

Yemeni Public Universities: Extending the Technology Acceptance Model (TAM) with anxiety. International Journal of Management and Human Science (IJMHS), Volume 2, Issue 2, Pages 1-9, 2018 eISSN: 2590-3748.

Armstrong-Mensah, E., Ramsey-White, K., Yankey B., & Self-Brown, S. (2020). *COVID-19 and Distance Learning: Effects on Georgia State University School of Public Health Students*. Frontiers in Public Health, 8. doi:10.3389/fpubh.2020.57622710.3389/fpubh.2020.576227.

Braun, M. T. (2013). *Obstacles to social networking website use among older adults*. Computers in Human Behavior, 29(3), 673–680.

Camilleri, M. A. (2020). *Strategic dialogic communication through digital media during COVID-19 crisis*. Strategic Corporate Communication in the Digital Age, ed. M. Camilleri (Bingley: Emerald).

Canough, J. (2016). *Effective Implementation of Technology*. Education Masters. Paper 261.

Calderon, J. (2006). *Methods of research and thesis writing (2nd Ed.)*. Mandaluyong City: National Bookstore.

Chang, C.-T., Hajiyev, J., & Su, C.-R. (2017*). Examining the students' behavioral intention to use e-learning in Azerbaijan? The general extended technology acceptance model for e-learning approach*. Computers & Education, 111, 128– 143. https://doi.org/10.1016/j.compedu.2017.04.010.

Charness, N., & Boot, W. R. (2016). *Technology, Gaming, and Social Networking*. Handbook of the Psychology of Aging, 389–407. https://doi:10.1016/b978-0-12- 411469-2.00020-0.

Chen, C. H. (2020). *A.R. videos as scaffolding to foster students' learning achievements and motivation in EFL learning*. Br. J. Educ. Technol. 51, 657– 672. https://doi:10.1111/bjet.12902.

Chen, H. R., & Tseng, H. F. (2012). *Factors that influence acceptance of webbased e-learning systems for the in-service education of junior high school teachers in Taiwan*. Evaluation and Program Planning, 35(3), 398–406. https://doi.org/10.1016/j.evalprogplan.2011.11.007.

Chung, J. E., Park, N., Wang, H., Fulk, J., & McLaughlin, M. (2010). Age differences in perceptions of online community participation among nonusers: An extension of the Technology Acceptance Model. Computers in Human Behavior, 26(6), 1674-1684.

Cigdem, H., & Topcu, A. (2015). *Predictors of instructors' behavioral intention to use learning management system: A Turkish vocational college example*. Computers in Human Behavior, 52, 22–28. https://doi.org/10.1016/j.chb.2015.05.049.

Crawford, J., K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., et al. (2020).*COVID-19: 20 countries' higher education intra-period digital pedagogy responses*. J. Appl. Learn. Teach. 3, 1–20. https://doi:

10.1080/1475939x.2020.1866654.

Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., & Hudziak, J. (2021). *Impact of COVID-19 pandemic on college students' mental Health and wellness*. Journal of the American Academy of Child & Adolescent Psychiatry, 60(1), 134–141. https://doi.org/10.1016/j.jaac.2020.08.466.

Davis, F. D. (1986). *A Technology Acceptance Model for Empirically Testing New End- User Information Systems*. [Theory and Results. Ph.D. Thesis, Massachusetts Institute of Technology, Cambridge, MA, USA, 1985].

Daud, N., Kassim, N., Said, W., & Noor, M. (2011). *Determining Critical Success Factors of Mobile Banking Adoption in Malaysia*. Australian Journal of Basic and Applied Sciences, 5(9), 252–265.

Dincer, A. (2020). *Understanding the Characteristics of English Language Learners' Out-of-Class Language Learning through Digital Practices*. IAFOR Journal of Education: Technology in Education Volume 8 – Issue 2.

DePietro, A. (2020). *Here's a look at the Impact of Coronavirus (COVID-19) on Colleges and Universities in the U.S*. https://www.forbes.com/sites/andrewdepietro/2020/04/30/impactcoronavirus-covid-19- colleges-universities.

Donitsa, S., & Ramot, R. (2020). *Opportunities and challenges: Teacher Education in Israel in the Covid-19 pandemic*. Journal of Education for Teaching, 46(4), 586–595. https://doi.org/10.1080/02607476.2020.1799708.

Durodolu, O. (2016). *Technology Acceptance Model as a predictor of using information systems to acquire information literacy skills*.

Fathema, N., & Sutton, K. L. (2013). *Factors influencing faculty members' Learning Management Systems adoption behavior: An analysis using the Technology Acceptance Model*. International Journal of Trends in

Economics Management & Technology (IJTEMT), 2(6), 20–28. Education and Information Technologies. 26, pages7057–7077 (2021).

https://doi.org/10.1007/s10639-021-10557-5.

Firat, M. (2016). *Determining the Effects of LMS Learning Behaviors on Academic Achievement in a Learning Analytic Perspective*. Journal of Information Technology Education: Research, 15, 75-87.

Garcia, M. (2017). *E-Learning Technology Adoption in the Philippines: An Investigation of Factors Affecting Filipino College Students' Acceptance of Learning Management Systems Article in The International Journal of E-Learning and Educational Technologies in the Digital Media*.

Gocotano, T. E., Jerodiaz, M. A., L., Banggay, J. C. P., Nasibog, R., & Go, M. B. (2021). *Higher Education Students' Challenges on Flexible Online Learning Implementation in the Rural Areas: A Philippine Case*.

Gonzalez, T., De La Rubia, M. A., Hincz, K. P., Comas-Lopez, M., Subirats, L., Fort, S., & Sacha, G. M. (2020). Influence of COVID-19 confinement on students' performance in higher education. *PLoS One, 15*(10), e0239490.

Hall, B. C. (2008). *Investigating the relationships among computer self-efficacy, professional development, teaching experience, and technology integration of teachers*. [Doctoral Dissertation, University of Cincinnati, Cincinnati, Ohio.

Hanham, J., Lee, C. B., & Teo, T. (2021). The influence of technology acceptance, academic self-efficacy, and gender on academic achievement through online tutoring. Computers & Education, 172, 104252. doi:10.1016/j.compedu.2021.10425210.1016/j.compedu.2021.104252

Harvey, H. L., Parahoo, S., & Santally, M. (2017). *Should gender differences be considered when assessing student satisfaction in the online learning environment for millennials*. Higher Education Quarterly, 71(2), 141–158.

Hung, C. L., & Chou, C. L. (2014). *Examining The Cultural Moderation On The Acceptance Of Mobile Commerce.*

Inozu, J., Sahinkarakas, S., & Yumru, H. (2010). *The nature of language learning experiences beyond the classroom and its learning outcomes*. US-China Foreign Language 8, 14–21.

Jones, A. B., & Kauppi, K. (2018). *Examining the antecedents of the technology acceptance model within e-procurement*. International Journal of Operations and Production Management, 38(1), 22-42.

Karaali, D., Gumussoy, C., & Calisir, F. (2011). *Factors affecting the intention to use a web-based learning system among blue-collar workers in the automotive industry*. Computers in Human Behavior, 27(1), 343–354.

https://doi.org/10.1016/j.chb.2010.08.012.

Khalil, R., Mansour, A. E., Fadda, W. A., Almisnid, K., Aldamegh, M., AlNafeesah, A., & Al-Wutayd, O. (2020). *The sudden transition to synchronized online learning during the COVID-19 pandemic in Saudi Arabia: A qualitative study exploring medical students' perspectives*.

mutahae*, 20*(1), 1–10.

Lai, C., Shum, M., & Tian, Y. (2016). *Enhancing learners' self-directed use of technology for language learning: the effectiveness of an online training platform*. Comput. Assist. Lang. Learn. 29, 40–60. https://doi:10.1080/09588221.2014.889714.

Lee, J.W. (2010). *Online support service quality, online learning acceptance, and student satisfaction*. Internet High. Educ. 2010, 13, 277–283.

Lee, D., Lee, S., Olson, D., & Chung, S. (2010). *The effect of organizational support on ERP implementation*. Industrial Management & Data Systems, 110(2), 269– 283. https://doi.org/10.1108/02635571011020340.

Mailizar, M., Burg, D., Maulin, S. (2021). *Examining university students' behavioural intention to use e-learning during the COVID-19 pandemic: An extended TAM model*.

Mutahar, A. M., Daud, N. M., Thurasamy, R., Isaac, O., & Abdulsalam, R. (2018). *The Mediating of Perceived Usefulness and Perceived Ease of Use : The Case of Mobile Banking in Yemen*. International Journal of Technology Diffusion, 9(2), 21–40. http://doi.org/10.4018/IJTD.2018040102.

Morris, M. G., Venkatesh, V., & Ackerman, P. L. (2005). *Gender and age differences in employee decisions about new technologies: An extension to the theory of planned behavior*. IEEE Transactions on Engineering Management, 52, 69–84.

Nuere, S., and de Miguel, L. (2020). *The digital/technological connection with COVID- 19: an unprecedented challenge in University teaching*. Technol. Knowl.Learn. https://doi:10.1007/s10758-020-09454-6.

NuriAbdalla, S. A. (2019*). Extend of TAM Model with Technology anxiety and Self- Efficacy to Accept Course websites at University Canada West*. International Journal of Information Technology and Language Studies (IJITLS). Vol. 3, Issue. 2, (2019). pp. 1-7.

Othman, M., & Al Othman, H. (2016). *Saudi Teachers' and University Students' Attitudes toward Computing*.

Pan, X. (2020). *Technology Acceptance, Technological Self-Efficacy, and Attitude Toward Technology-Based Self-Directed Learning: Learning Motivation as a Mediator*.

Pantano, E & Di Pietro, L (2012). *Understanding Consumer's Acceptance of TechnologyBased Innovations in Retailing*. Journal of Technology Management and Innovation, Volume 7, (4).

Park, S., Nam, M. W., & Cha, S. B. (2012). *University students' behavioral intention to use mobile learning: Evaluating the technology acceptance model*. British Journal of Educational Technology, 43(4), 592–605. https://doi.org/10.1111/j.14678535.2011.01229.x.

Pike, G. R., Smart, J. C., & Ethington, C. A. (2012). *The mediating effects of student engagement on the relationships between academic disciplines and learning outcomes: an extension of Holland's theory*. Res. High. Educ. 53, 550–575. https://doi:10.1007/s11162-011-9239-y.

Popovich, P.M., Gullekson, N., Morris, S. & Morse, B. (2008). *Comparing attitudes towards computer usage by undergraduates from 1986 to 2005*. Computer in Human Behavior, Vol. 24 No. 3, pp. 986-992.

Radanliev, P., De Roure, D., & Walton, R. (2020a). *Data mining and analysis of scientific research data records on Covid-19 mortality, immunity, and vaccine development-In the first wave of the Covid-19 pandemic*. Diabetes Metab. Syndr. Clin. Res. Rev. 14, 1121–1132. https://doi:10.1016/j.dsx.2020.06.063.

Radanliev, P., De Roure, D., Walton, R., Van Kleek, M., Montalvo, R. M., Santos, O., et al. (2020b). *COVID-19 what have we learned? The rise of social machines and connected devices in pandemic management following the concepts of predictive, preventive and personalized medicine*. EPMA J. 11, 311–332. https://doi:10.1007/s13167-02000218-x.

Rajan, C., & Baral, R. (2015*). Adoption of ERP system: An empirical study of factors influencing the usage of ERP and its impact on end user*. IIMB Management Review, 27(2), 105–117. https://doi.org/10.1016/j.iimb.2015.04.008.

Rillo, R. M., & Alieto, E. O. (2018). *Indirectness Markers in Korean and Persian English Essays: Implications for Teaching Writing to EFL Learners*. The Journal of English As An International Language. Volume 13 – 2.2.

Sam, H. K., Ekhsan, A., Othman, A., & Nordin, Z. S. (2005). *Computer SelfEfficacy, Computer Anxiety, and Attitudes toward the Internet : A Study among Undergraduates in Unimas*. Educational Technology & Society, 8(4), 205–219.

Scherer, R., Siddiq, F., & Tondeur, J. (2019). *The technology acceptance model (TAM): A meta-analytic structural equation modeling approach to explaining teachers' adoption of digital technology in education*. Computers & Education, 128, 13–35. Retrieved from https://doi.org/10.1016/J.COMPEDU.2018.09.009.

Shin, J., Seo, M., & Lew, Y. K. (2022). *Sustainability of Digital Capital and Social Support during COVID-19: Indonesian Muslim Diaspora's Case in South Korea*. Sustainability. 14. 7457. 10.3390/su14127457.

Solomon Osho, G. & Williams, F. (2018). *An Empirical Investigation of the Impacts of Web-Based Distance Education: Evidence for Justice Studies*. Journal of Educational Issues ISSN 2377-2263 2018, Vol. 4, No. 2. https://doi.org/10.5296/jei.v4i2.13049.

Suki, N. M. (2011). *Exploring The Relationship Between. Perceived usefulness,*

Perceived Ease Of Use, Perceived Enjoyment, Attitude And Subscribers' Intention Towards Using 3g Mobile Services. Journal of Information Technology Management. Vol. 12 (1).

Tarhini, A., Hone, K., & Liu, X. (2013). *Factors Affecting Students' Acceptance of e- Learning Environments in Developing Countries: A Structural Equation Modeling Approach*. International Journal of Information and Education Technology, 3(1), 54-59. https://doi.org/10.7763/IJIET.2013.V3.233.

Terblanche, N., Kidd, M. (2022). *Adoption Factors and Moderating Effects of Age and Gender That Influence the Intention to Use a Non-Directive Reflective Coaching Chatbot*. SAGE Open. April 2022. https://doi:10.1177/21582440221096136

Teo, T. (2011). *Technology Acceptance in Education: Research and Issues*, 1–5.

Teo, T. (2013). *A comparison of non-nested models in explaining teachers' intention to use technology. British Journal of Educational Technology*, Vol.44 (3), E81- E84. https://doi:10.1111/j.1467-8535.2012.01350.x.

Teo, T., Fan, X., & Du, J. (2015). *Technology acceptance among pre-service teachers: Does gender matter? Australasian Journal of Educational Technology*, 31, 235– 251. https://doi.org/10.14742/ajet.1672.

Thakur, R., & Srivastava, S. (2014). *Mobile Technology Acceptance Among Turkish Travelers*.

Venkatesh, V., Thong, J. Y. L., & Xin Xu (2018). *Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology*. MIS Quarterly, Vol. 36, No. 1 (March 2012), pp. 157-178 https://doi.org/10.2307/41410412.

Vladova, G., Ullrich, A., Bender, B., Gronau, N. (2021). S*tudents' Acceptance of Technology-Mediated Teaching – How It Was Influenced During the COVID-19 Pandemic in 2020: A Study From Germany*.

Wang, Y. S., Wu, M. C., & Wang, H. Y. (2009). *Investigating the determinants and age and gender differences in the acceptance of mobile learning. British Journal*.

Wang, X. & Lee, K. (2020). The paradox of technology innovativeness and risk perceptions – A profile of Asian smartphone users. Telematics and Informatics. Educational Technology, 40(1), 92-118.

Watermeyer, R., Courtois, A., and Lauder, H. (2020). *Reacting to Covid-19 by slashing fixed-term staff would be a disaster*. Times Higher Education.

Whitley, B. E., Jr. (1997). *Gender differences in computer-related attitudes and behavior: A meta-analysis*. Computers in Human Behavior, 13, 1–22.

Wen, Y. & Kwon, O. (2010). *An empirical study of the factors affecting social network service use. Computers in Human Behaviour*.