An Assessment of the Online Learning Readiness of Selected Filipino Graduate Students in Business

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ABSTRACT

The study's objective is to assess the readiness of graduate school students in business based on the common challenges in online education. It used a quantitative research design to survey 153 sample students from 3 selected autonomous graduate schools in the City of Manila's University Belt. Results revealed that the respondents are always ready with regard to the online challenges, namely: adaptability, computer literacy, and self-motivation, but not in terms of technology and time management. Also, it was found that regardless of school, age, gender, and years of work experience, graduate school students have the same online readiness level. However, with regards to the effect of student profile on their readiness, findings showed that only the school affiliation has an influence on technical readiness, and gender on readiness in terms of digital literacy. The study implies that online learning should be part of the universities' business strategies, thus the study recommends some plans that the graduate school management can implement. The study contributes to the currently sparse literature on this area. Instructional designers of foreign colleges and universities with graduate studies could get information on how to increase online learning readiness by taking into account the demographics of their target populations.

Keywords: Online Learning; Graduate Student in Business; Online Education Readiness.

1. INTRODUCTION

There seems to be a sustained need for accessible and continuous education and re-education, which pave the way for the steady growth and development of online education. In the Philippines, several universities and colleges have already adapted online learning as a pedagogical tool for their students for bachelor's, master's, and doctoral degrees. Among the institutions that have implemented distance learning in the Philippines are the following: 1.) AMA University Online Education (AMA OEd), 2.) Asian Institute for Distance Education (AIDE), 3.) Benguet State University – Open University, 4.) CAP College Foundation Inc., 5.) E-learning for Agriculture and Fisheries, 6.) New Era University, 7.) Polytechnic University of the Philippines Open University (UPOU), 8.) Southville International School Affiliated with Foreign Universities (SISFU) and the Philippines, 9.) University of the Philippines Open University, 10.) Visayas State University – Open University.

      There are many studies concerning the challenges dealt with by students and educators during online learning. However, from the perspective of the universities' management, there are only a few studies suggesting challenges and business strategies that the management could take in terms of marketing, operation, and finance for its sustainability. There are data about

schools that closed down due to their inability to adopt the new technology in education. Examples of the Higher Educational Institutions which stopped operation are: the Colegio De San Lorenzo, the College of the Holy Spirit Manila, and Kalayaan College. It was imperative to modernize and establish a non-traditional system of education and evaluation agenda, but the aforementioned Colleges were not able to cope. Educational institutions, mainly graduate schools, must find ways to sustain their operating system and financial resources. Sustainability dictates that even after the emergency situation, graduate schools must still continue to adapt the pedagogical change.

Online learning uses modern technologies and enables varied combinations of synchronous and asynchronous set-ups among learners and educators who are physically distanced from one another (Alfonso, 2012; Arinto, 2016). Esperat (2018) states that students nowadays are mostly technology savvy and they tend to use technology every day. Moreover, students can use many platforms to access the internet such as their cell phones, laptops, and computers, especially now that navigating the internet is much easier than before. Due to the continuous growth of online education, it becomes very important to understand the context of online education for students in lieu of the conventional face-to-face teaching (Garcia et al., 2019; Gilbert, 2015; Nguyen, 2015).

The academe is a rich ground for professional and would-be businessmen who are trained to participate in interdisciplinary teams in some functional areas like assessing the effectiveness of investments (Mandigma, 2017). Thus, this study assessed the readiness of graduate students in business in an online environment in terms of common challenges. It also evaluated the effects of graduate students' profile on their online learning readiness. Finally, the researchers suggested some business strategies that the graduate schools could develop concerning marketing, operations, and finance for online business sustainability.

This study is based on the Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA). TAM and TRA provided the theoretical underpinning for investigating the relationships among the demographic profile and digital readiness of graduate students in business through multiple regression analysis. The graduate school students in business are selected for testing the theories because the researchers believe that due to their length of work experience and their maturity, they have more knowledge and skills involving software that can assist them in studying through online platforms. Similarly, Park and Yun (2018) revealed that the academic level is a predictor of digital engagement. Besides, it appears that older students' superior adaptability to online learning lends them a slight advantage in online courses in comparison with their younger counterparts (Xu and Jaggars, 2013). Many studies have been done in the past about the interaction among variables involving participants other than the subject of the present research. The present investigation of the graduate students in business could lead to a causal relationship model that can be helpful in developing an up-to-date model as envisioned by Firat and Bozkurt (2020), which explains the constantly changing online learning environments and meets online and distant learners' expectations.

It is hoped that this study could serve as a springboard in spreading awareness on the level of online learning readiness of graduate students in business, not only in the Philippines but even in other countries. Since there are no perfect or best practices to imitate in designing graduate online courses, the findings of this study could add ideas on possible learning processes that could be adopted with varied starting points and flexible technology intended for learners with different demographic profiles, exhibiting individual needs, competencies, and skills.

2. THEORETICAL FRAMEWORK

2.1   Challenges in Online learning

Students' Perspective

Students, instructors, and university management are mostly aware of the uses of online learning as well as its benefits. Nevertheless, notwithstanding the benefits of online learning, it may not be valid across all the studies. From the students' perspective, some studies yielded results that the performance of students in the traditional face-to-face classes is better than in the online classes (Nguyen, 2015). With regard to the graduate schools, graduate students in fully online format frequently experienced lower community sense than those doing on-site and hybrid courses. This could lead to graduate student dissatisfaction and worse, to attrition (Garcia et al., 2019).

One of the common problems that could be observed in online courses was the likelihood of non-interaction between students and students, and between students and educators. Additionally, these online courses require larger amount of time to develop and apply than traditional pedagogy. It should be noted that interaction in any class is essential for the students to learn. Moreso, sufficient interaction among the students could breed satisfaction with the online course. The more interaction, the more satisfied the students are and the more they learn and acquire knowledge. Since the interaction between students in an asynchronous online course and educators is limited, they tend not to promptly respond to the students' queries if their emails were not regularly checked. Distance learning may disappoint students should no immediate support are given by the teachers to students needing an immediate response for an upcoming assignment (Esperat, 2018; Frimming & Bordelon, 2016). Hence, the unintended outcome would be negative perceptions of students towards the quality of the course.

Also, in the study of Esperat (2018), one of the challenges faced by international students was motivation, which was also supported by the study of Kress et al. (2012). The study participants indicated that it was difficult for them to stay motivated in online classes because they lack the chance to interact particularly with their teacher and their classmates. Further, they were less motivated due to the lack of prompt feedbacks from the other students and the teacher (Gilbert, 2015). It was also concluded that instructors' technology competence or computer literacy is imperative in determining students' experience with classes.

Educators' Perspective

Arinto (2016) cites two issues and challenges identified by faculties at UPOU (UP Open University). The first is the need to stimulate innovative practice among the UPOU faculty members who remained unengaged in ODeL (Online Distance E-learning). In contrast, it is the need to support and help innovative practices among the innovators. Resistance to technology integration is among the faculty's issues and challenges. Such resistance was due to lack of time, inability to face the demand of distance learning, and the need to re-orientate on pedagogy.

Different phenomena have significant impacts on educators at the workplace and to their profession. Sadly, not all colleges and universities have developed continuity strategies for teaching and learning during these phenomena. Thus, temporary contracts for those educators with contractual or no permanent contract with the colleges and universities were either shortened or terminated. Moreso, teachers generally expect the continuity of their teaching activity using a virtual modality during these uncertain times. Another apparent impact on educators is adjusting to the changes in using different contemporary online platforms to conduct their classes. Adjustments to the new technology for teaching is indeed, a big challenge to most, if not all.

University Management Perspective

From the perspective of the school management, online learning would be complex for them to market to the students as many students view online learning as lesser effective pedagogy than traditional face-to-face learning. One of the challenges from the students' perspective is the lack of interaction or socialization with their classmates and professors, which is very important for post graduate students. According to Garcia et al. (2019), for students to develop academically, the study design must consider numerous situations and results. Therefore, university administrators and faculty must consider how they can improve students' academic development within online contexts and support all students.

In the current environment, academic staffs are considered very vulnerable because they may be subject to possible job reduction or elimination by private universities. Perhaps, these private institutions are constrained to do this because of the possibility of a financial curtailment brought about by the reduction of revenues from a reduced number of student enrollment. The interim paucity of face-to-face activities has greatly diminished the functions of colleges and universities, which also contributes to the increasing unemployment in the Philippines. This is evident in the records of the Philippine Association of Colleges and Universities, where out of its 195 members, over 50 percent of the respondents admitted that they encountered a decrease in their student enrollment. Another imminent challenge that private educational institutions will face is the BIR Revenue Regulation No. 5-2021, which took effect on April 9, 2021, and would increase the income tax of private schools from 10 % to 25 %.

The effect of this legal provision on private colleges and universities cannot be certainly assessed and presumably, it will depend on two variables. First, the effect may be dependent on the ability of the private entities to remain academically active, and second, on their capacity be financially sustainable. These private institutions must be capable of anticipating crises that could consequently result to either temporary or even absolute closures. Moreover, reopening schools to conduct face-to-face learning after the restrictions due to a phenomenon, or possibly a crisis, posed also a problem, considering the various recently developed standard operating procedures that were put in place (Pokhrel and Chhetri, 2021).

2.2   Theories

The theoretical foundations of the constructs used in this study are based on the Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA). The former is recognized as an essential element of computer acceptance to be used in online learning. The latter claims that that computer acceptance is determined by the person's intention influenced by attitudes and social norms. In addition, TRA justifies the adoption behavior (Arena et al, 2023). The readiness of graduate students in online learning can be assessed by their perceived usefulness and ease of technology, which are fundamental determinants of user acceptance based on TAM.

2.3   Hypothesized Model

The framework that shows the hypothesis "Students' demographics have no significant effects on their online readiness based on common challenges,", is depicted in Figure 1.
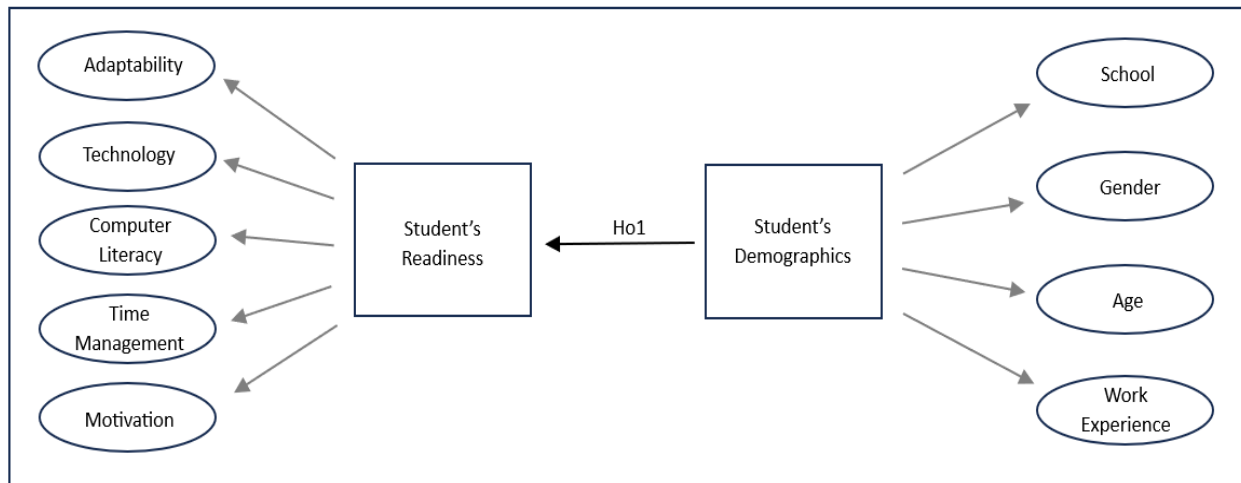
Figure 1 Hypothesized Model

The study assessed the readiness of graduate school students in business in online learning in terms of adaptability, technological skills, computer literacy, time management, and motivation, which could be used as implications for business strategies that could be adopted by graduate schools. Further, the paradigm also suggests that the students' demographics such as school affiliation, gender, age, and work experience, may significantly influence the students' readiness with online learning.

3. RESEARCH METHODS

This research adopted a quantitative survey design in which the researcher surveyed the sample from the entire population to assess the student's readiness in terms of adaptability, technology, computer literacy, time management, and self-motivation. The variables used to define readiness were different from those of the Technology Readiness Index (TRI) which used the traits optimism, innovativeness, discomfort, and insecurity (Vibora and Mandigma, 2022). The current study mainly focused on the significant differences among the five common challenges in online learning equated to the readiness of graduate school students in business. Three universities in the City of Manila with graduate schools were selected as study location. These three graduate schools are all located in the City of Manila's University Belt, with Autonomous Status granted by Commission on Higher Education (CHED). For ethical reasons, the names of these 3 universities were not disclosed in this article, but simply designated as A University, B University, and C University. The study has a total population of 313 from the three Graduate Schools. The researcher has obtained the data from Commission on Higher Education for the A.Y 2021-2022. Of the total population, 153 is the sample size, with a confidence level of 88.4%.

A survey questionnaire was created to obtain the necessary data. The participants were randomly selected based on the population of enrolled students in three selected graduate schools. The questionnaire was divided into four sections. The first section is for the demographics of the respondents, such as the name of the school, gender, age, undergraduate degree, postgraduate program, years of work experience, and if the respondents' work requires the use of a computer. The second part of the questionnaire assessed the respondents' readiness based on the following variables: technical issues, adaptability, time management, computer literacy, and self-motivation. The last part of the questionnaire explores the expectations of graduate school students toward online learning. The survey instrument was disseminated

through an online survey. Google Forms was the primary tool to reach the targeted respondents.

Before the actual survey, the questionnaire underwent content validation by a specialist through Cronbach Alpha which tested the quality and reliability of the survey instrument. A pre-test was conducted on 20 respondents. Specifically, students from different graduate schools who were not enrolled in the three selected schools received the questionnaire to check on the instrument's length, clarity of the questions, and the questionnaire's reliability. According to Taber (2016), Cronbach's alpha greater than the 0.70 reliability coefficient is sufficient, and no further scale development is needed. Based on the result, all variables surpassed the acceptable reliability coefficient of 0.70. The Cronbach's alpha statistics in this study is 0.80 which showed that the instrument's data set has a reliability value that is considered excellent and reliable. This may be due to the validation done by experts on the said questionnaire.

Descriptive statistics as well as Kruskal-Wallis Test and Regression Analysis were employed in this study. Statistical tools such as mean, standard deviation, median, and *p* values were used to answer the objectives of the study. Verbal interpretations of the mean values led to the assessment whether the student respondents were always, often, sometimes, or never ready with the online mode of teaching. To determine the significant differences, the researchers used Kruskal-Wallis Test to examine the *p*-values of the five common challenges. To determine the causal relationship among variables, multiple regression analysis was employed. The *p* values in both the Kruskal-Wallis Test and the regression analysis signified whether to support or not to support the null hypothesis shown in figure 1.

4. RESULTS AND DISCUSSION

4.1 Research Question 1: *How ready are the graduate school students in business in online learning concerning the common challenges?*

The researcher asked the respondents about their level of readiness for the five common problems in pedagogy for an online learning, namely: technological skills, adaptability, time management, computer literacy, and self-motivation. To determine the level of readiness, the researcher used the below scale (Tables 1-5) to interpret the value of the mean.

Table 1. Level of Readiness as to Adaptability

Indicators/Variable	Mean	Std. Deviation	Verbal Interpretation
a. I am highly eager to learn different on-line learning platforms for online classes	3.634	0.626	Always
b. I am able to understand lectures and discussions through our online class platforms	3.412	0.693	Always
c. I enjoy sharing my thoughts and ideas during online class and answering questions or responding to discussions.	3.222	0.780	Often
d. I am comfortable with online communications platform and online environment.	3.366	0.714	Always
e. I have no worries adapting with online classes setup	3.438	0.706	Always
f. I feel it convenient to conduct classes through online	3.386	0.787	Always
g. I am willing to learn different skills and study different online platforms that online learning would require	3.588	0.654	Always
Adaptability	**3.435**	**0.511**	**Always**

Table 2. Level of Readiness as to Technology

Indicators/Variable	Mean	Std. Deviation	Verbal Interpretation
a. I have fast, strong and reliable access to the Internet without interruption	3.216	0.658	Often
b. I know someone who can help should there be any technical issues in my connection or computer	2.869	0.864	Often
c. I have devices (e.g. Laptop, tablets and cellphones) with specifications required for online class	3.810	0.425	Always
d. I can download and install the required applications for my online classes	3.621	0.618	Always
e. I have back up internet connection should there is an interruption with my internet connection	3.157	0.828	Often
f. I am satisfied with the speed and connection of my internet provider in our area	3.144	0.823	Often
g. I never had an issue with my computer or internet access during online class even when there is a typhoon	2.817	0.892	Often
Technology	**3.233**	**0.488**	**Often**

Table 3. Level of Readiness as to Computer Literacy

Indicators/Variable	Mean	Std. Deviation	Verbal Interpretation
a. I am comfortable using various applications. (e.g., MSWords, ppt)	3.778	0.462	Always
b. I am highly able to use computer, cellphone and internet to search information	3.850	0.359	Always
c. I am highly familiar with different communication platforms for my online class (e.g., email, google, zoom, teams).	3.712	0.509	Always
d. I am able to resolve on my own any technical issues in online class	3.157	0.796	Often
e. I don't ask for any technical support from the provider or other person about any technical issues that will arise	2.882	0.835	Often
f. I 1 had a hard time navigating any online platform	3.033	0.846	Often
g. I enjoy learning different online learning platforms that would help me enhance my knowledge in Information technology	3.542	0.639	Always
Computer Literacy	**3.422**	**0.411**	**Always**

Table 4. Level of Readiness as to Time Management

Indicators/Variable	Mean	Std. Deviation	Verbal Interpretation
a. I can finish my course requirements on or before the deadline	3.425	0.666	Always
b. I can focus exclusively on online class without any distractions in my environment	2.974	0.752	Often
c. I can still have enough rest, and able to do recreational activities	2.980	0.815	Often
d. I plan ahead to avoid cramming and be able to deliver quality output for my work and online class	3.222	0.671	Often
e. I am good at setting goals and deadlines	3.235	0.676	Often
f. I am more comfortable to do all course requirements at my own pace	3.595	0.579	Always
g. I never let myself to procrastinate in doing my online class, work and any personal stuff	2.987	0.725	Often
Time Management	**3.203**	**0.477**	**Often**

Based on the results shown in Tables 6-10, in terms of adaptability, computer literacy, and self-motivation, graduate students in business are always ready for these three common challenges. This is being supported by the study of Lin et al. (2017) which showed that learning strategies predict outcomes of online learning, not by intrinsic or extrinsic motivation. These learning strategies were found to include both the learning ability and the pedagogy. Likewise, an individual's literacy may vary depending on the amount of knowledge or skills they have (Mendoza et al., 2023). However, this contradicts the studies of Sharma and A. (2021), Esperat

(2018) and Mishra et al, (2020), as motivation was one of the primary challenges in online learning as the respondent students were not ready for the new technology.

Table 5. Level of Readiness as to Self-motivation

Indicators/Variable	Mean	Std. Deviation	Verbal Interpretation
a. I endeavor to excel in my course of study.	3.647	0.544	Always
b. I do not hesitate starting and finishing my academic tasks.	3.052	0.724	Often
c. I persevere when confronted with challenges during online class	3.425	0.614	Always
d. I keep details whenever I read or view excerpts of audio/video files.	3.359	0.665	Always
e. I 1 quit if things get hard in this new normal	3.556	0.617	Always
f. I tend to finish any projects that I start	3.588	0.556	Always
g. I can keep myself on track and on time in online learning set up	3.490	0.619	Always
Self-Motivation	**3.445**	**0.443**	**Always**

While in terms of technology and time management, graduate students in business are often prepared for these challenges. This study supports the result of the mixed-method research of Joseph & Mkulu (2020), in which the inclusion of ICT-based instruction enabled students to learn better even in a short period of time. Moreover, Osman (2020), indicated in his research that students have positive perception in online learning because of the faculties being more flexible and adaptable. These results are consistent with the findings in question number one of this present research wherein the graduate school students are prepared for the five common challenges in online learning. However, the result contradicts the studies of Hyseni (2020) and Ullah et al. (2017) in which learners have pessimistic attitude and perspective towards the online pedagogy because they found it to be more incomprehensible and less informative.

4.2 Research Question 2: *Do students' demographics such as school affiliation, gender, age, and work experience, significantly influence their readiness with online learning concerning the five common challenges?*

First, the researchers determined whether there are significant differences in the readiness of graduate school students in terms of five common challenges when grouped according to their demographics. To determine the significant differences, the researchers used Kruskal-Wallis Test to examine the p-value of the five common challenges. Should the test results to a p-value that is less than 0.05, it means that the difference is significant. However, should the test results to a p-value of ≥ 0.05, it means that the difference has no significance. Results are presented in the following Tables 6-9.

Table 6. Comparison Across Schools

Variables	School									p-value
	A University			B University			C University			
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	
Adaptability	3.579	3.714	0.440	3.413	3.571	0.560	3.419	3.429	0.424	0.357
Technology	3.150	3.000	0.554	3.226	3.286	0.493	3.286	3.286	0.451	0.601
Literacy	3.429	3.571	0.431	3.440	3.429	0.422	3.382	3.429	0.385	0.628
Time Management	3.248	3.286	0.561	3.168	3.143	0.487	3.256	3.143	0.418	0.511
Motivation	3.489	3.857	0.511	3.410	3.429	0.470	3.502	3.571	0.346	0.589

Table 7. Comparison Across Gender

| Variables | Gender | | | | | | | | | p value |
| | Female | | | Male | | | LBTQIA+/Preferred Not to Say | | | |
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	
Adaptability	3.481	3.571	0.500	3.404	3.500	0.484	3.155	3.214	0.634	0.172
Technology	3.205	3.286	0.515	3.286	3.286	0.395	3.298	3.429	0.553	0.861
Literacy	3.371	3.429	0.417	3.543	3.571	0.365	3.452	3.500	0.459	0.614
Time Management	3.190	3.143	0.484	3.225	3.143	0.482	3.238	3.286	0.432	0.956
Motivation	3.453	3.571	0.443	3.454	3.571	0.459	3.357	3.429	0.420	0.406

Table 8. Comparison Across Age

| Variables | Age | | | | | | | | | p-value |
| | ≤ 23 years | | | 24 to 38 years | | | 39 to 53 years | | | |
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	
Adaptability	3.393	3.357	0.356	3.423	3.571	0.532	3.571	3.643	0.363	0.597
Technical	3.179	3.214	0.665	3.229	3.286	0.481	3.306	3.357	0.475	0.841
Literacy	3.304	3.286	0.492	3.435	3.429	0.416	3.367	3.429	0.330	0.539
Time	3.179	3.214	0.380	3.188	3.143	0.487	3.357	3.286	0.433	0.449
Motivation	3.357	3.500	0.425	3.444	3.571	0.448	3.510	3.643	0.429	0.686

Table 9. Comparison Across Years of Work Experience

| Variables | Experience | | | | | | | | | p-value |
| | ≤ 5 years | | | 6 to 10 years | | | ≥ 11 years | | | |
	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	Mean	Median	Std. Deviation	
Adaptability	3.439	3.571	0.569	3.406	3.429	0.507	3.493	3.714	0.420	0.697
Technical	3.156	3.286	0.551	3.280	3.286	0.467	3.263	3.143	0.413	0.412
Literacy	3.394	3.571	0.477	3.402	3.429	0.394	3.516	3.571	0.314	0.433
Time	3.156	3.143	0.489	3.234	3.143	0.495	3.212	3.143	0.424	0.737
Motivation	3.367	3.429	0.469	3.487	3.571	0.414	3.488	3.714	0.457	0.309

Based on the result, as shown in Tables 6-9, the readiness of the graduate school students in business regarding the five common challenges in online learning when grouped according to their demographics has p-values that are all greater than 0.05, indicating that there are no differences among them which could be considered significant. The foregoing results, however, should be investigated in future research to know the reasons for the absence of significant differences (Mandigma, 2019). Further, this will also support the researchers' contention that "There are no significant differences in the common challenges (adaptability, technical, literacy, time, and motivation) when grouped according to students' demographics (school affiliation, gender, age, work experience). One of the findings of the study is similar to that of Ullah et al. (2021), where results showed that the views of the student respondents about their problems with the use of the new technology in learning are not significantly affected by their gender. The results also support the study of Kar et. al (2014) and Thapa et. al (2021), wherein demographics has no association with the readiness of the students towards online learning. However, these results are contrary to the findings in the studies of Demir Kaymak and Horzum (2013), Cigdem and Yildirim (2014), Martin and Bolliger (2018), and Firat and Bozkurt (2020).

The research of Demir Kaymak and Horzum (2013) showed that online learning students' readiness was negatively related to perceived structure. Learners' demographics are

classified by Kahu (2013) as structural influences thus, learners' demographics are deemed to negatively influence online learning readiness. The study by Cigdem and Yildirim (2014) revealed that students' characteristics (PC ownership, department, type of high school graduation) significantly affect learners in some dimensions of online learning readiness scores especially computer/Internet self-efficacy. Then, Martin and Bolliger (2018) claimed that learners' demographics, such as age, gender, and previous online learning experience, are influential on their engagement. Since Kara (2021) argued that online learning literature commonly reveals that learners' readiness for online learning, as a learner factor, is a requisite for their engagement in online education, we can say that learner demographics may be influential on their online readiness. In the recent work of Firat and Bozkurt (2020), it was found that demographics of Open and Distance Learning (ODL) learners can be used as an indicator of online learning readiness.

To further test the hypothesis of this present study, the causal relationships between students' demographics and their readiness were statistically investigated using multiple regression analysis. Results were presented in Table 10.

Table 10.1 Regression Results

Predictors	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	p - value	Decision
Adaptability						
(Constant)	3.214	0.259		12.434	0.000	Significant
Gender	-0.075	0.094	-0.068	-0.796	0.428	Not Significant
Age	0.136	0.138	0.103	0.987	0.325	Not Significant
work experience (years)	-0.008	0.059	-0.014	-0.141	0.888	Not Significant
A University	0.063	0.150	0.042	0.419	0.676	Not Significant
B University	-0.005	0.096	-0.005	-0.055	0.956	Not Significant
Technical						
(Constant)	2.993	0.249		12.001	0.000	Significant
Gender	0.057	0.091	0.054	0.632	0.529	Not Significant
Age	0.087	0.133	0.068	0.656	0.513	Not Significant
work experience (years)	0.057	0.057	0.101	1.003	0.318	Not Significant
A University	-0.290	0.145	-0.196	-2.002	0.047	Significant
B University	-0.057	0.093	-0.058	-0.614	0.540	Not Significant

Table 10.2 Regression Results (Con't)

Predictors	Unstandardized Coefficients	Std. Error	Standardized Coefficients	t	p - value	Decision
Literacy						
(Constant)	3.235	0.210		15.376	0.000	Significant
Gender	0.177	0.077	0.195	2.306	0.023	Significant
Age	0.010	0.112	0.009	0.085	0.932	Not Significant
work experience (years)	0.038	0.048	0.080	0.795	0.428	Not Significant
A University	0.021	0.122	0.017	0.172	0.863	Not Significant
B University	0.068	0.078	0.082	0.865	0.389	Not Significant
Time Management						
(Constant)	2.873	0.251		11.433	0.000	Significant
Gender	0.023	0.091	0.022	0.251	0.803	Not Significant

Age	0.182	0.134	0.142	1.359	0.176	Not Significant
work experience (years)	0.000	0.057	0.001	0.008	0.994	Not Significant
A University	-0.112	0.146	-0.076	-0.769	0.443	Not Significant
B University	-0.065	0.093	-0.066	-0.695	0.488	Not Significant
Motivation (Constant)	3.431	0.233		14.746	0.000	Significant
Gender	-0.004	0.085	-0.004	-0.047	0.963	Not Significant
Age	-0.026	0.124	-0.022	-0.213	0.832	Not Significant
work experience (years)	0.063	0.053	0.122	1.196	0.234	Not Significant
A University	-0.004	0.135	-0.003	-0.030	0.976	Not Significant
B University	-0.075	0.087	-0.083	-0.868	0.387	Not Significant

Table 10 shows that there are no significant causal relationships between learners' demographic profile and their online learning readiness across different challenges, except for the effect of their university affiliation on technical readiness and the influence of gender on their computer literacy. The negative association between A University and technical readiness denotes that graduate students of business enrolled at A University have less propensity to embrace and use cutting-edge technologies than those enrolled at B and C Universities. This finding about the student in A University is quite odd because the study by Morin, Safaee, and Saadé (2019) showed that older students have more confidence than younger ones in computer proficiency and learning skills. Graduate students are older and they are expected to have the work experience and/or maturity to be more knowledgeable in managing software, and that skill will help them to learn better online.

The present study also found that gender has a significant influence on the computer literacy of the graduate students of business. Specifically, male online learners are more digitally literate than the female online learners. This finding supports the findings of the research by Hung (2016), but using teachers as participants. Hung found that male teachers exhibited statistically a greater readiness than the females. However, some studies showed that females outperformed their male counterparts in online learning readiness (e. g., Xu and Jaggars, 2013; Firat and Bozkurt, 2020). Other studies simply stated that gender significantly influences online readiness, but they did specify which of the 2 genders is more dominant (e.g., Bolliger and Halupa, 2018; Martin and Bolliger, 2018; Power et al., 2022. Contrary to the foregoing findings, the study by Martin, Stamper & Flowers (2020) revealed that there were no differences found in the online readiness of the respondents when examining differences in their gender.

4.3 Research Question 3: *What business strategies could graduate schools implement in terms of marketing, operation, and finance for business sustainability?*

Before business strategies could be suggested, the respondent graduate students were asked questions about their preferred learning pedagogy and their expected support from the university relative to their online classes. Results are summarized in Tables 11 and 12.

Table 11. Preferred Learning Pedagogy

Tools	Frequency	Percent
Synchronous (requiring all the students to be online for scheduled class)	23	15.0
Asynchronous (students engage in activities at any time at their own pace)	8	5.2
Mixed of Synchronous and Asynchronous	80	52.3
Traditional or face to face blended with online learning (Hrybrid)	42	27.5
Total	153	100.0

Table 12. Expected Support from the University

Support	Frequency	Percent
Wi-Fi router or devices	18	11.8
Mental health counseling	27	17.6
Tuition fee reduction	105	68.6
Others	1	0.7
No Answer	2	1.3
Total	153	100.0

Based on the questions the researchers asked the respondents, the preferred pedagogy for graduate school, 52% of the respondents preferred the mixed synchronous and asynchronous mode of learning. At the same time, 25% of the respondents preferred the hybrid mode of learning, which is the mix of traditional face-to-face and online learning, which also supports the result of the data on the readiness of graduate school students in business. The results showed that majority of the graduate school students in business choose online learning set-up, which is a mixed of synchronous and asynchronous modes. This finding is similar with those Ilonga et al. (2020) and Mathew and Iloanya (2016), who found that most learners or students chose online learning because of the opportunity to pursue further study while keeping their jobs. Because most of the respondents are working students and seeking to obtain a higher education degree to help them broaden their career opportunities, it is helpful for them to have their classes online instead. However, these results are not in agreement with the findings of Alwamleh et al. (2020), Gautam & Gautam (2020), and Lukong et al. (2020). In the aforementioned studies, students have negative perceptions of the online pedagogy, because of their belief that it is less effective than the face-to-face classes thus, the student respondents were more in favor of the onsite classes than the online mode of learning.

The graduate school management has to consider the three areas of their organizational strategy: marketing, operation and finance. The strategy may focus on the following:
    a. Marketing: Effective marketing platforms to reach the target audience
    b. Operations: Educational innovation
    c. Finance: Reducing or containing the cost of the graduate school department

a. Marketing: *Effective Marketing Platforms to Reach the Target Audience*
According to Kumar et al. (2021), advertising or marketing is an essential aspect in making educational institutions capable of building awareness, visibility, and brand recall of their product or service. Based on recent studies in India, about half (46 percent) of all users of the internet is the main market segment that the business schools in India are targeting (Keelery, 2020). In the Philippines, business schools are also targeting mostly internet users as their primarily market. Based on the assessment of this study, age, gender, and years of work experience have no significant differences in the readiness for five common challenges of online learning; this can be concluded that business school students are all knowledgeable about the internet. The study by Kumar et al. (2021) assessed the effect of advertising campaign through digital channels, specifically using Google AdWords, in recommending business

schools. It focuses on CTR (Clickthrough ratio), which measures the number of clicks the specific link has received divided by the total number of users. Digital campaigns positively impact the CTR. The following are the suggested strategies, based on Kumar. et al. (2021), that can be used in developing a framework in the meantime that a marketing campaign through digital channels is being designed.

Strategy 1: Make and run in Google some selected advertisements so as to get better number of impressions and number of clicks.
Strategy 2: The business school should choose or create a proper advertisement format to have a good Clickthrough ratio (CTR).
Strategy 3: The business school should choose an adequate day and time to advertise to ensure high Clickthrough ratio (CTR).
Strategy 4: There must be a good mix of the aforementioned strategies that can be employed to come up with a high Clickthrough ratio (CTR).

b. *Operations: Educational innovation*
Based on the assessment of the study on the level of satisfaction of graduate school students in business in the effectiveness of online learning, it shows students are often satisfied with skill development in terms of problem solving and interpersonal and are always satisfied with Self-aware awareness skills in an online learning set-up. The satisfaction level is also consistent with the results of the preferred online learning pedagogy of the students, which is mixed of synchronous and asynchronous learning.

Strategy 1: Inclusion of online learning pedagogy (Asynchronous and Synchronous) in the curriculum of the graduate school student in business.

Based also the result of the study regarding the areas that students want to improve during online classes, communication with graduate school facilitators tops among all the choices, followed by access to library resources and activities or modules for online learning. All of these involve communication. Such is evident as effective communication is one of the challenging activities in online learning. Everyone is remote, and the only means to reach the other party is via an online platform. Likewise, online communication sometimes does not give a real-time response.

Strategy 2: Make communication between the graduate school facilitator and students more frequent, intentional, and multifaceted.

c. *Finance: Reducing or containing the cost of the Graduate school department*
Another notable result of the study is what the students expect from graduate school management support for the tuition fee reduction garnered the highest percentage of 65.7 %. According to Fooladvand et al. (2015), the colleges and universities could properly balance the management of their investments, discounts, and revenues if they were financially stable.

Strategy 1: Expanding to other markets (online learning) to be able to access a new revenue stream.
Strategy 2: Lowering tuition fees and reducing operational costs

5. CONCLUSIONS AND RECOMMENDATIONS

The rise of online learning has become the primary pedagogical tool across the educational system. Online education paved the way for the massive use of technology and superseded traditional face-to-face learning. Many studies have shown the effectiveness of online learning in HEIs and post-graduate level; thus, many Universities have already considered online pedagogy as part of their curriculum. However, only a few have studied the perspective of graduate school management and business strategy toward online learning. Based on the assessment of the students' readiness, the researchers can conclude that graduate school students in business are ready for the challenges of online learning as strategical pedagogy. The study implies that online learning should be part of graduate universities' business strategy and curriculum, especially for business school students. However, in practice, some scholars observe that efforts are concentrated into research, operations, and outreach activities, thereby neglecting the integration into the curricula (Mandigma et al., 2016). Highlighting and proper education about the benefits of online learning could be the key to enticing business school students or potential business school students to enroll in an online learning set-up.

Business strategy is essential in any industry because it helps them understand the business' weaknesses and strengths. Through also a business strategy, the company can capitalize on its strengths and improve on its weaknesses. Further, it also ensures that all areas of the organization (marketing, operations, and finance) have a roadmap that shows the destination and identifies practical stopping points along the way. In today's generation, graduate schools should implement innovative business strategies to adapt to rapid changes in the educational system, and consequently be always relevant and maintain an advantage apart from their competitors. This research recommends business strategies in three areas of the organization: marketing, operations, and finance.

The researchers intend to spread awareness beyond the Philippines. Thus, from a journal where this study is published, foreign colleges and universities with graduate studies could get information on how to increase online learning readiness by taking into account the demographics of their target populations. Besides, these institutions could find ideas from the present study about possible learning processes that could be adopted with varied starting points and flexible technology intended for learners with different demographic profiles, exhibiting individual needs, competencies, and skills.

This research included limited participants from three Graduate Schools in the U-belt. For further study, it is recommended that the geographical area as the situs be expanded to accommodate an extended number of survey participants from several other colleges and universities. This study also recommends the inclusion of the non-profit and profit universities and colleges for their valuable insights into how different sectors could have different strategies based on their peculiarities. Further, the study recommends a comparative study in terms of cost efficiency from the perspective of the Management if Universities implement different learning pedagogy such as purely online learning, Hybrid, and purely face-to-face. While this study recommended business strategies in three primary organizational functions for online learning, they are basic plans and they can still be enhanced. Considering that business strategies must be taken holistically; it is recommended that further studies be undertaken to explore the other factors that can influence the business strategies of the Universities.

universities where the researchers conducted their survey. Further, they thank the anonymous reviewer for his/her helpful comments and suggestions.

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