Adapting to Changing Expectations: Accounting Students in the Digital Learning Environment

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***Abstract*—As a developing nation, Malaysia is looking forward to transforming its direction towards the Industrial Revolution 5.0. Aligned with the transformation process that is mainly driven by the rapid modern industrial transformation, Malaysian education system is faced with a variety of challenges especially in equipping young adults with innovative, digitally literate, and high critical thinking skills to make them future-ready. Additionally, the growing digital world economy has resulted in the loss and transformation of jobs which necessitates the transformation of Malaysian education for future employability. Moreover, the ongoing global COVID-19 pandemic has accelerated the digitalization of the education sector. Hence, this study aims to explore, analyze, and evaluate first-year Bachelor in Accountancy students' perspectives with regard to their online learning experiences in digitalized classrooms by looking at six dimensions: 1) Self-Directed Learning, 2) Learner Readiness toward Online Learning, 3) Learner Control, 4) Online Communication, 5) Computer/Internet Self-Efficacy, and 6) Motivation for Learning. Using a qualitative research design, online interviews via Google Meet involving 43 first-year students were conducted. The recorded interviews were then transcribed and analyzed using ATLAS.ti 8. The results of the study suggest that online learning has its advantages and disadvantages based on the respondents' perspectives and experiences. A majority of the respondents reported that they enjoyed online learning and were well prepared for it while some of them perceived online learning as a complicated approach due to some factors. It can be concluded that these students were ready for online learning.**

***Index Terms*—Digitalized classrooms, educational transformations, first year-students, online learning.**

I. Introduction

Historically, the technological age has its roots in Industrial Revolution (IR) 1.0 where mechanization replaced the manual works in the industry. Subsequently, during IR 2.0, mass production became possible with the development of electrical technology, followed by IR 3.0 which was all about digitalization. In this phase, Information Technology (IT) was introduced to automate production where computers, artificial intelligence, and robots were used to assist the work of human labor. In IR4.0, the revolution saw the coming of smart systems and the technology of the cyber-physical system whereby computers are now equipped with technology that enables them to control and connect with their robotics digital partner to work with little input from humans. In the present, the industry has now been revolving around the IR 5.0 which is an upgrade to IR 4.0. The world will get to see how humans and machines collaborate and work hand in hand to improve their efficiencies in business operations. Subsequently, these modern transformations in the industry have given a moving force to various aspects, including the educational transformation potentials of the fifth generation of education (Education 5.0).

Malaysia, in its Education Blueprint 2013-2025 has raised the concern of parents and employers over the ability of the present education system in preparing young adults for these 21st-century challenges. It is agreed that education shall necessitate changes in terms of its contents, structure, and teaching delivery to produce graduates who are innovative, digitally literate, and well-equipped with high critical thinking skills to embark on the future. Additionally, the increasing use of digitalization has created many new job titles which somehow require a huge transition in the organization especially in terms of employee skills and recruitment. In short, the industry would need to prepare the people for the new world. In relation to this, [1] foresee severe potential job losses from a growing digitalized world economy unless an improvement in basic education is made necessary for future employability

Education is seen as a vital medium that prepares our present and future generations with the necessary skills. In this regard, the new technologies evolved in IR 5.0 has called for Education 5.0 to align the needs for learners to learn new skills and knowledge that are in demand in the workforce. Currently, the ongoing global pandemic of COVID-19 is pressing more challenges on the education sector to embrace digitalization. [2] highlighted that the trends have taken place within the new educational setting where teachers are now conducting classes inside or outside the class time anywhere. In doing so, personalized learning is implemented in which more flexible and alternative learning tools and techniques for students to choose for are made available, involving more project-based and hands-on learnings as well as exposing students to new online knowledge assessments. Besides, students' opinion is incorporated in revising the school curriculum and teachers change role as facilitators and students are expected to be more independent on their own learning [3]. Other than that, digital educational technology highlighted in modern education literature has also shown a rapid use of virtual reality learning systems, robotization, and digital learning games technology in classrooms thus increasing use of electronic resources for access in getting the best teaching videos, contents as well as network interactions for easy exchange of data [4].

With regard to the accounting education, learners are generally equipped with necessary skills and knowledge that prepare them ready for the workplace as well as increasing their chances of employability. As a result, tertiary education

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and accountancy training programs would be impacted by the in-demand skills needed of the profession and this has been the subject of many debates. As teaching and learning accounting at university can be very challenging due to its complex standards, studies have shown that accounting students face challenges in learning accounting-related subjects. Consequently, they often have a negative perception of this subject [5] as well as seeing accounting as a dull and not interesting area of study. Additionally, some students were reported to view accounting as highly technical and too structured in nature in which it deals with a lot of calculations [6]. Plus, many students find difficulties in understanding the double-entry rules in preparing the final accounts, thus contributing to a high failure rate [7]. In a study by [8], it was found that mentioned that the accounting majors did not see the relevance of accounting education to future careers thus, underperformed. Besides, learning accounting subjects is more difficult when the teachers tend to use teaching methodology that may not fit with the way the students learn. Furthermore, [9] reported that accounting is a high-risk subject for students that did not have an accounting background before joining the university. He believed the learning atmosphere is the key factor in influencing the approach students take to learning accounting subjects.

As education is highly valued in society and has always become a priority in any country's pursuit of economic and social development, digitalization of education has accelerated and led the academicians to find new ways of teaching and learning as they switch to remote teaching and online assessments even amidst the COVID-19 pandemic. In this paper, the authors explored, analyzed, and evaluated expectations and experiences in online learning from a total of 120 first-year students of Bachelor in Accountancy. Thus, the research question is 'how the students adapt to the current needs of digitalized education?'. Therefore, this study discusses the integration of Education 5.0 in the higher education setting to assist first-year students of Bachelor in Accountancy in the post-pandemic era to adapt themselves to the current needs and changes in the educational environment and best align themselves for future employability. The objective of this study is to explore the accounting students' perspectives and experiences in digitalized classrooms by looking at six dimensions: 1) Self-Directed Learning (SDL), 2) Learner Readiness towards Online learning, 3) Learner Control, 4) Online Communication, 5) Computer/internet self-efficacy, and 6) Motivation for learning. The current study also analyzes and evaluates evidence from the use of digitalized classrooms.

II. Literature Review

A. Digitalization in Education Context

Keeping in pace with the current digitalized industry is a challenging feat for the education sector. There are limited studies on students' perspectives on the digitalization of education in universities [10]. The unexpected COVID-19 pandemic has accelerated the need for the digitalization of education and eventually becomes the 'new normal' approach in the process of teaching and learning. The pandemic, too, has caused a disruption to the traditional classroom education and sudden transition to distance learning mode [11]. [12] see an urgent need for a new reform in the education sector to well prepare learners for the post-pandemic era [12]. However, the readiness of students who have completed online learning and its shortcomings are still unclear [13]. Thus, more research needs to be carried out for better explanation on the root causes that hinder the development of digitalization in higher education. It would also be essential to extend such research to the post-pandemic period to investigate students' perceptions of how the current course delivery should be supported.

Ref. [14] studied factors of digital technology in the education setting in the Republic of Kazakhstan and found that new programs like innovative technology is being introduced into schools and universities. The use of computers has also increased and the country is working towards developing more research universities. Russia acknowledges educational technologies as the new normal and has made them mandatory in education sector with the approval of distance learning system and the development of online corporate portals for teaching and learning [15]. Most educational institutions in Russia today have incorporated tablets, smartphones, and computers which resulted in physical activity reduction [13]. Meanwhile, a study in digital transformation in Africa found the privatization process has taken place in the national education sector where private sectors bring about educational technology solutions in the curricular, assessment, and school management [1]. In relation to that, a research done by [12] analyzed the IR5.0 and post-pandemic effects on higher education in Afghanistan revealed one of the skills highlighted to accelerate Education 5.0 is technology literacy skills from the advancement of Information Communication Technology (ICT) and Artificial Intelligence (AI) to align with the 21st century employability requirements. In the Malaysian context, the government has initiated Massive Open Online Courses (MOOCs) to digitalize education as a step forward to make education accessible and provide more learning opportunities to everyone.

Digitalization has transformed the traditional chalk and talk classrooms into smart classrooms [16]. Textbooks are replaced with e-books, lectures are no longer presented on whiteboard but using PowerPoint slides with audio and video effects, assignments become paperless, and the teaching medium is going the electronic way. Some other means of new digital learning are through the use of YouTube videos, digital portals, and online learning apps [17]. For instance, in empowering digitalization in education in India, many online applications have been utilized such as Google Classrooms, EPathshala, GuruQ.in, Kahoot and Toppr [16]. Meanwhile, the United States' education system is seen to be undergoing a massive transformation in the use of technology in the classroom to help in note and assessment taking and timely project and assignment submissions [18]. It was also noted that classroom seating arrangement becomes more flexible with multiple styles of assignments and assessments, and the use of many online learning platforms to enable students to learn any course anytime anywhere using their chosen device [2], [5].

B. Impact of Digitalization on Students' Perspective

As has been previously reported in the literature, there were various perceptions on modern digital technology in the education setting, especially among students. Results from past studies showed that students who had exposure to online learning were happy as they had the flexibility to explore knowledge and skills since they were used to mobiles and laptops [19]. In addition, students also had more fun and joy learning through two-way conversation via mobile and video-based learning. In another study, digital learning technology was found to help enhance self-directed learning skills as it gave power to students to take the initiative of their learning; to decide what and how they want to learn [16]. Although they experienced hiccups in the internet connectivity, students enjoyed the flipped classroom approach as it matches the millennial learning preference and they were more active participating in class due to the exciting and creative new learning designs [2]. They also concurred that universities should develop students' technical and non-technical skills to ensure they are 'work ready' upon graduation. Studies in India indicated high acceptability of online education particularly in younger populations as there is an increase in the number of users, increasing cost of traditional education, and increasing number of open and distance learning courses [16]. In a research carried out by [20] in Nigeria, it was shown that students experienced the sharing of accountability in learning with teachers and online learning helped them to easily access the various sources of learning materials anytime anywhere. Another study by [21] in Hong Kong that examined students' behavior and emotion upon learning mathematics in a digital learning management system revealed that students became stimulated when teachers gave them the freedom to choose the preferred digital materials from various resources such as PowerPoint slides, videos, and links. They felt connected as the system adopted technology that used interesting and interactive features and they were more confident in completing assigned tasks as they received immediate response from the digital resources. There are many that digitalization can offer to help students and teachers, but there is also a flip side to it.

A deeper analysis of research indicated that there was high expectation of digitalization across all target groups. A survey in Russia on undergraduate and master students on e-learning experience revealed that although undergraduate students were positive about digitalization, a greater percentage of master students preferred a combination of online and traditional classroom because they believed such arrangement gave a stronger and clearer knowledge over the subject matter with the help from the teacher as the subjects are more difficult [22]. As argued by [2], hybrid learning approach engages online learners more in group discussion to reduce the gap with the traditional way of learning. Findings from a study done by [22] proved the high readiness of students to embrace digital education. However, there was a concern over the availability of the means for its implementation which is the technical support provided by the university and teachers' proficiency [23]. The domain of learning is experiencing huge changes in coping with the impact of digitalization in education and thus the need to measure the level of readiness among students. [24] assessed students' readiness using the Online Learning Readiness Scale (OLRS) looking into five dimensions: Self-directed Learning, Motivation for learning, Computer/internet self-efficacy, Learner control, and Online communication self-efficacy. The result of the study indicated that higher grade students show a higher level of readiness.

C. The Learning of Accounting for Future Employability — Then and Now

There exists a considerable body of literature on the link between education and quality human resources in the industry. [25] noted a positive relationship between human capital and labor productivity through tertiary education and concluded that quality influences the impact of education on productivity. For instance, it was found to be evident in the Romanian labor market that the growth in employment rate and labor productivity were positively related to the level of education of the labor [26]. Additionally, [5] were also on the same page that higher education was a significant determinant to higher wages and employment probability in the context of Russia. On a different perspective, [27] confirmed the connection between less-educated adults and lower occupational status signaling that formal education qualifications and skills are important in shaping labor market inequalities. Meanwhile, [5] reported a higher probability of success in finding first jobs when the level of education is higher. These studies support the theory of human capital which suggests highly educated people will earn more and they are more productive. It is a fact that success in human resources in the industry depends on the education system. A nation's future is thus very much depending on what is now happening in the classroom.

Ref. [28] discussed two types of learning approaches adopted in accounting which are surface and deep learning approaches. Traditionally, students learn accounting more on the surface in which they only memorize but do not seek further linkage of what is learned, less engagement with the subject matter, and only learn in order to complete assessments and pass the subject. A study by [8] described that students learned through lectures that emphasize more on technical contents, one-way textbook discussion, and used little of technology in traditional classes. Years forward, in light of education 4.0/5.0, the old 'instructional' surface learning approach has been replaced with a new deep learning method that emphasizes on 'learning to learn approach'. Therefore, [29] proposed an active learning approach to supplement the traditional learning to boost both inside and out-of-classroom learning. Under the active learning approach, educators use case studies and cooperative learnings to get students learn through solving problems in groups. The focus is also more on providing broader and general accounting education to develop lifelong learning [30]. The new learning model also emphasizes technologies in education such as the use of accounting software and the availability of video-based learning and these change how students access and interact with the various learning resources [31]. Today's learnings are linked to real-life scenarios and hands-on exercises on accounting concepts using technology rather than just memorization.

The current teaching-learning model is shifted to meet the in-demand skills of the future work of the profession, among others are the complex problem-solving skills, critical thinking, digital technology expertise, and technology innovation skills [32].

III. Research Methodology

The current research discusses the integration between the first-year students of Bachelor in Accountancy and their ability to adapt with current educational needs in the digital environmental era. The current research explores these students' perspectives and experiences in a digitalized classroom by looking at six dimensions; 1) Self-Directed Learning (SDL), 2) Learner Readiness towards online learning, 3) Learner Control, 4) Online Communication, 5) Computer/internet self-efficacy, and 6) Motivation for learning.

A. Development of Interview Questions

Firstly, a total of 120 first-year students of Bachelor in Accountancy were requested to express and share their expectations and real experiences regarding digital learning environment through a written response. Secondly, all their written responses were thoroughly analyzed in which the information obtained was categorized into six (6) dimensions which are 1) Self-Directed Learning (SDL), 2) Learner Readiness towards online learning, 3) Learner Control, 4) Online Communication, 5) Computer/internet self-efficacy, and 6) Motivation for learning. This was done in order to align with a study done by [33] which utilized content analysis to scrutinize data. Thirdly, from the content analysis carried out, the researchers developed a set of interview questions to gather more detailed explanations as well as verifying the experiences expressed by the students via the written responses submitted. This approach allows the researchers to further address any related issues under the current study, clarify the students' statements, seek for additional information, as well as capturing a person's perspectives of an expectation and experiences [34]−[36]. Table I presents the summary of issues and questions discussed during the interviews:

TABLE I: Issues and Questions Discussed During the Interviews

Accounting students' experiences and expectations in digital learning environment	
Dimension 1 : Self-Directed Learning (SDL)	• What are your initiatives to meet the learning needs? • How do you establish self-learning goals to keep pace with the digital classroom? • What is your best learning strategy? • Please explain any distractions or problems you encounter in digital learning environment.
Dimension 2: Learner Readiness towards online learning	• Which style of learning do you prefer either online or face-to face classroom? • How do you help yourself to get engage with the electronic devices/software/ tools related to digital learning? • Are you able to adapt with autonomous learning or prefer for group learning?
Dimension 3: Learner Control	• Do you feel that the online learning gives you freedom and flexibility in using the study materials? • What is your opinion related to the cost you need to incur to fulfill the needs of digital learning?
Dimension 4: Online Communication	• How do you establish interactions and communication with your lecturers and classmates?
Dimension 5: Computer/internet self-efficacy	• What is the level of your proficiency in using computer and technology to accomplish task? • Do you have problems with your internet connection and coverage and how do you overcome with it?
Dimension 6: Motivation for learning	• How do you keep yourself motivated with online classes? • What do you feel with online learning classes after going through for one semester?

B. Profiles of Participants

In exploring the students' perceptions, experiences, and expectations of online learning in a digital learning environment, a qualitative online interview was carried out involving a total of 43 first-year students of Bachelor in Accountancy from a local university in Melaka, Malaysia. The students were chosen using stratified random sampling. The locations or home addresses of the students were identified based on the states in Malaysia and the locations were further grouped into five (5) main regions namely East, West, Northern, Southern, and Sabah/Sarawak regions. The ratio of selection for each region was based on the ratio of three (3) to one (1) indicating that for every three (3) students located on a specific region, one (1) student will be selected as a sample. Additionally, this stratified random sampling best represents the entire population of studies [37].

The researchers then arranged the online group interview sessions and all the sessions were recorded. A total of eleven (11) groups involving the 43 respondents had participated in the interviews. The details of the respondents are shown in Table II below:

TABLE II: Profiles of Interviewees

Group of interviews	Location/ Home Address	Region	Number of students
4 groups	Selangor	West Malaysia	10
	Kuala Lumpur		4
	Putrajaya		2
2 groups	Pahang	East Malaysia	4
	Kelantan		5
	Terengganu		1
2 groups	Kedah	Northern Malaysia	4
	Perak		2
	Penang		2
	Perlis		0
2 groups	Negeri Sembilan	Southern Malaysia	2
	Melaka		2
	Johor		3
1 group	Sabah	Sabah and Sarawak	1
	Sarawak		1

C. Data Gathering and Analysis

The interview recordings were transcribed before further

analyzed using Assisted Qualitative Design Analysis Software (AQDAS) namely ATLASti 8. The Code Group data were further classified into Sub-Codes after a detailed analysis. The Code Groups and the Sub-Codes were generated using 'Networks' as a final output. The Code Groups are the six dimensions mentioned earlier; 1) Self-Directed Learning (SDL), (2) Learner Readiness towards online learning, (3) Learner Control, (4) Online Communication, (5) Computer/internet self-efficacy, and (6) Motivation for learning.

D. Ensuring Objectivity and Reliability of Qualitative Online Interviews

A triangulation technique was used to secure the accuracy and reliability of the findings using multiple sources of evidence. [34], [35] mentioned that the data triangulation technique will enhance the credibility and reliability of research findings. The current research held a focus on group discussion in which all the 43 interviewees were called one more time through the Google Meet platform for the presentation of output findings from the interviews. This second online meeting with the interviewees helped to check and confirm the information analyzed by the researchers. This method is consistent with [34] who claimed that conducting focus group verification helps to verify and check on the information being analyzed. Later, data validation was derived through 'member check' procedures in which the researchers conducted some short discussions with few lecturers teaching the first-semester students of Bachelor in Accountancy. This informal discussion with colleagues had assisted the researchers to achieve intellectual and emotional validation among peers as these lecturers had conducted the digitalized teaching and direct bonding with the respondents for the whole semester. Additionally, peer review was said to be one of the construct validity strategies related to ideas, procedures, and research process relating to qualitative data [34].

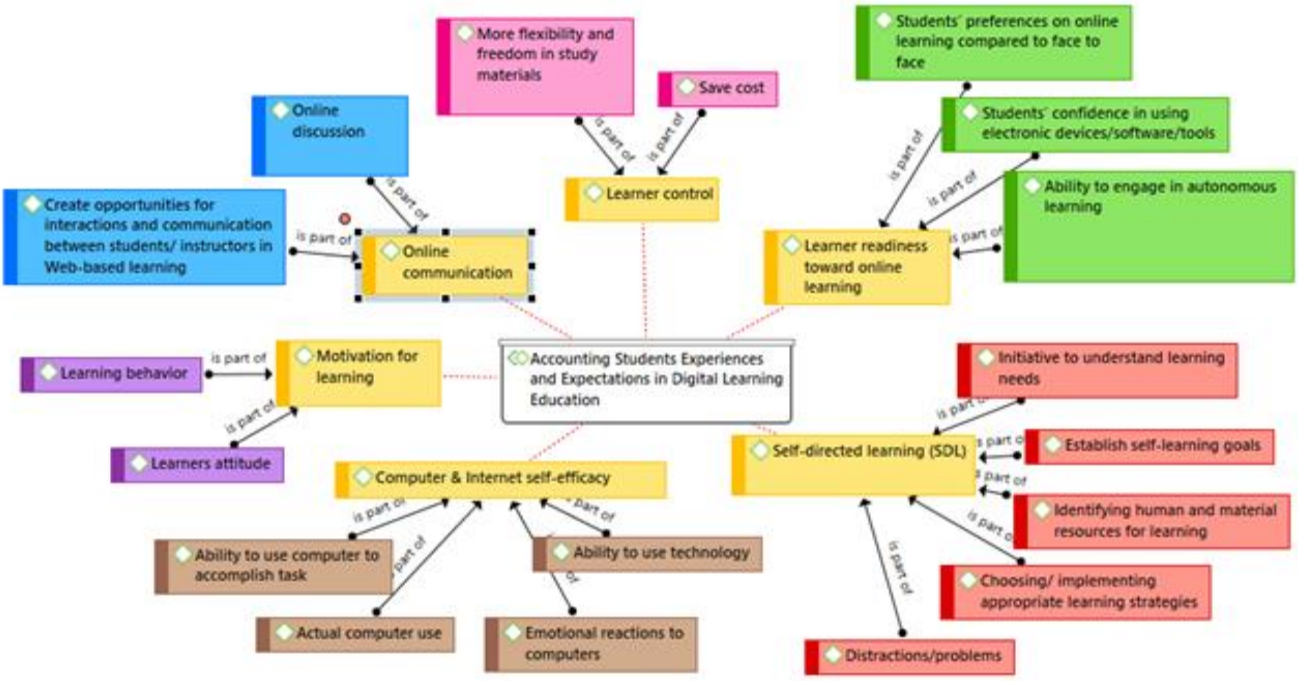

Fig. 1. Results generated from ATLAS.ti 8.

IV. Findings and Discussion

The purpose of this study was to gauge students' perceptions and, experiences in the digital learning environment. The findings discussed how the students adapt to the current needs of digitalized education. We grouped the findings into six (6) Code Groups which are 1) Self-Directed Learning (SDL), 2) Learner Readiness towards online learning, 3) Learner Control, 4) Online Communication, 5) Computer/internet self-efficacy, and 6) Motivation for learning. The findings were further classified into Sub-Codes using ATLAS.ti 8 as shown in Fig. 1.

A. Self-directed Learning (SDL)

Digital learning environment requires students to be responsible of their own learning. Self-directed learning forced students to have the initiative to understand learning needs. Students have to wisely allocate their twenty-four hours dealing with family, study, and self. Being at home requires students to put extra effort and take the initiatives to understand learning needs on their own. When they are at home, students are also exposed to a lot of distractions such as WhatsApp Messages, Telegram, and addiction to social media like Instagram, Twitter, and online games which inhibit them from staying focused. Students reported that they managed to establish their own self-learning goals and were able to complete their very first semester successfully.

"I have created a self-study schedule so that I can manage time more efficiently."

Implementing appropriate learning strategies helped the students to stay positive and dedicated throughout the semester. They practiced good time management which enabled them to be productive while still had time to get enough rest. Some students decorated their bedroom to stay

focused on the computer screen for long hours. However, some students felt staying at home triggered a lot of distractions for them to stay focused throughout the learning process, especially during synchronous learning.

"Distraction from WhatsApp messages and addiction to social media such as Instagram, Twitter, and online games which can lead to an unhealthy lifestyle for the students"

"I might be bothered by my neighbors with their activities, for example, logging, construction or house renovation which will lead to sound pollution."

The students, however, should be able to identify solutions and overcome such distractions to attend synchronous classes with tranquility. Therefore, based on the findings, it is shown that the students managed to adapt to the current needs of digitalized education as there were able to cope with the online learning through good time management independently.

B. Learner Readiness Towards Online Learning

Online learning is more flexible and most of the students expected to experience an enjoyable learning process. The students said they had a fun experience when they first joined the university courses. Even though the lectures and curricular activities were conducted virtually, the students were so eager to attend each class.

"This is not the university experience anyone has anticipated, but what is different from one person to the next is how we respond to it."

"For the first half of the semester, it was exciting. I cannot wait to start my degree studies freshly with an open mind. I have done a lot of preparations before the semester started."

However, there were several students who preferred to have physical classes with the physical presence of the lecturers, classmates and face-to-face interactions as well as the experience of living on campus.

"Even though I like staying at home, I am looking forward to entering the campus soon. I do not want to spend all my degree life at home and never have a chance to look around the campus."

The unexpected ongoing COVID-19 pandemic has forced not only the lecturers but also students to adapt with the use of latest technologies, software, devices, applications, gadgets, and tools to ease the online learning processes.

"We are fortunate enough to have various online platforms to communicate and get in touch with our lecturers and classmates better. A platform such as discord, google meet, or video calls help us to further discuss the assignment and segregate the task workload among our group members."

Overall, the learners' readiness towards online classes was high and the students were able to engage in the autonomous learning process smartly. They were prepared for most of the classes, actively involved in every class, and tried so hard completing all the tasks and assignments. Therefore, it shows that the students were well-adapted to digitalized education as much as they were ready to go through online learning. However, they were looking forward to having physical classes in the near future. Above all, the blended learning approach, which is a combination of online and physical classes, is recommended as the students still need human touch to keep them motivated in their studies.

C. Learner Control

Digital classrooms have forced the students to gain control over their twenty-four hours without anyone's supervision. This somehow leads the students towards a better and meaningful time management thus keeping them to be dynamic and viable in online classes. The greatest benefit that can be derived from digital learning is the flexibility and freedom in the study process. The students had unlimited access to lecture materials and they could review the lecture materials repeatedly. Besides, online learning also allows them to spend more time with their beloved families and provide assistance with the housework.

"If I had missed any information during the class, I could watch recorded videos uploaded by the lecturer repeatedly via online platforms such as Google Classroom, WhatsApp, or Telegrams."

"The recorded lecture has been of great help since halfway through a google meet, I gradually lost my concentration after being in front of the laptop for too long. Some lecturers are creative in delivering the knowledge. Learning materials can be obtained anytime and anywhere."

The students also disclosed that online learning helps them to save money as they did not have to allocate any budget on transportation, accommodation, and meals unlike if they attended physical classes on campus. Particularly, the students were also able to engage well in digitalized education especially in terms of having full control over their learning materials as well as managing their monthly expenses way more economically as compared to having physical classes on campus.

D. Online Communication

Online communication has created opportunities for interactions and active participation in class discussion between students and lecturers. In this study, the students reported that they had good experiences in online learning as online communication allows them to make more connections with new friends as well as communicating with each other for discussions. They also managed to complete the assigned tasks promptly. Moreover, the students reported that the lecturers were very helpful and always helped them with their studies as they were very responsive to the students. This shows that online communication did not limit lecturers' communication with the students. They were also willing to give students assistance in online learning regardless of their locations.

Despite all the challenges faced in online learning, the students realized they had to go through it and there was no way to escape it. Hence, they learned to adjust to the current situation with the help of their friends, lecturers, and close family members. They realized that they had to put in extra efforts and manage their time well to get through online learning. Therefore, they continuously helped, supported, and motivated each other to prevent burnout or loss of interest when studying online. Additionally, they worked with other students online, encouraged each other to stay motivated and gave feedbacks on each other's work, spent time studying together, actively discussed matters together, and ensured each of them received the right and accurate information or instructions.

"But somehow, Online Distance Learning (ODL) is way better than my expectation. Even though we just had our class virtually, it does not limit us to communicate with each other, making new friends, and having our discussions together."

Nevertheless, there were several students who perceived online communication was tough as it lacks interpersonal communication due to its non face-to-face nature, hence they somehow felt isolated from their classmates and lecturers. Moreover, it was difficult for them to complete the group tasks as it was not easy for them to express their opinions and get their messages delivered on time especially when the discussions they had were conducted only through WhatsApp Messenger. Apart from that, they also reported that not having the chance to meet their classmates physically had made the online communication worse.

"What I dislike about ODL was that it has no real interaction with friends and lecturers. Besides, some of the subjects require the students to form a group to complete the assignment and it was difficult to have a group discussion."

Based on the results, there were mixed findings in adapting to digitalized education as some of the students found it challenging to communicate online as they had to communicate with new friends that they had never met in person. Meanwhile, there were also students who felt comfortable with online discussions as it more is convenient to keep each other motivated, make new friends and get the right information during the online learning.

E. Computer/Internet Self-efficacy

The other factors that contributed to the negative experiences were the unstable internet connection and lack of compatible devices. In this study, the students reported that they were mainly impacted if the online communication were run via online meeting platforms such as Google Meet, ZOOM Cloud Meetings, Cisco Webex Meetings, and Microsoft Teams which technically require a stable internet connection.

"The drawback of online classes was poor internet connectivity. Not every single student has been privileged to enjoy excellent internet connections and compatible devices for online learning."

"The lecturer was very helpful to help the student that had a bad connection to the internet. They recorded their lecture and sent it to us as revision and at the same time help the student that lost the connection while listening to the live lecture."

The main issue surrounding online learning is the stability of the internet connection. Based on the responses obtained, only few students had stable internet connection while most of them did not. Poor internet connection affected the students' full attendance for synchronous classes, participation during class discussions as well as time taken to respond during synchronous classes. The students also expressed their frustrations that they frequently missed important information during synchronous classes due to the unstable internet connection. Consequently, they had to revise the lesson via recorded sessions uploaded by the lecturers after the synchronous class, which was a hassle as extra hours are needed to be spent in front of the computer screen to complete their learning and tasks given. This had consequently made the students to be physically and mentally exhausted. This problem was further exacerbated when the students could not afford the appropriate devices for online learning other than their smartphones. This also contributed to their bad experience in online learning because many of the students were not able to purchase the necessary gadgets or upgrade the existing gadgets they have.

"It is quite unusual and stressful to adapt the use of gadgets and technology in the learning process. However, I am still learning and improving my skills and techniques in using technology during this pandemic."

Apart from that, the students also found that it was stressful to adapt to technology as they had to improve their computer skills and knowledge, explore and learn new applications to complete the assignments. Some of the subjects require the students to use certain software to produce attractive video presentations. Meanwhile, some of the students enjoyed online learning more than face-to-face classes as they like exploring new things related to technology and applying higher-level skills such as troubleshooting. Significantly, online learning needs to be supported by a stable internet connection to objectively achieve digitalized education. Hence, the students need to equip themselves with the necessary equipment and improve skills to adapt to digitalized education.

F. Motivation for Learning

Students' intrinsic or extrinsic motivational orientation could have significant effects on the students' learning performance in online learning. In this study, there were many students who felt demotivated during online learning. Among the contributing factors was distractions at home. Some of them reported that they could not control themselves from spending time playing videos games and watching online movies. Furthermore, it was also reported that the students found it hard for them to focus on long online

lectures compared to physical lectures. They also reported that they had a burnout and felt mentally drained as they needed to catch up with the lessons, never-ending take-home exercises, assignment due dates, and continuous assessments.

"I felt burnout and mentally drained during ODL since I need to catch up with all the syllabus, never-ending homework, doing my house chores, and constant anxiety with the due date of the assignment/test."

Thus, it is imperative for lecturers to understand students' attitudes and preferences toward learning keep planning and improving the online educational resources to keep students motivated and stay positive.

Apart from that, some of them became demotivated due to being too long at home that they gave up on enhancing their social skills.

"My social skill also became worst as I did not have any topic to talk about with my friends anymore. I prefer to stay in my room rather than sharpening my social skill."

Despite the online learning challenges, some of the students reported that they found means to make online learning manageable without affecting their motivation to study. To keep up with online learning, the students prepared a timetable so that they could manage their time well. With good time management, they would be able to have more time to catch up with the topics that they did not understand by going through the readily available materials on online platforms such as Google Classroom. Consequently, they felt less stressed out and ended up enjoying online learning.

"Even though our classmates and instructors are thousands of miles distance, we have opted to keep pushing forward in the face of difficulties. I will always find ways to make my online learning manageable and enjoyable."

Their patience in enduring online learning challenges and positivity also stemmed from the support from family members and their belief that they will reap the benefits of their hard work.

"I should be grateful because my surrounding is very supportive especially, my family, lecturers, and classmates. They have always been there for me to support through my ups and downs even though we never knew each other.

This shows that the students' motivation was reciprocally related to their family support and strong belief in being rewarded for their hard work. To sustain their motivation, the students became active learners who had desires for learning and made use of the advantages of online learning. The students also made use of all the materials given by the lecturers and went through the recorded videos uploaded to further understand the topics covered in class.

Notably, digitalized education may seem an effortless approach but blending it with the reality of daily life, is definitely a challenging experience to students. Additionally, the effect of the COVID-19 pandemic has makes the situation worst as every part of the world is struggling to survive mentally and physically. Hence, in the context of the present study, it was found that a majority of the students found it difficult to adapt to digitalized education while only a minority of them appreciated online learning.

V. Conclusion

Based on the findings of this study, it was shown that there are positive and negative experiences reported by the accounting students with regards to the online learning approach. On the positive side, the students managed to adapt with digitalized education as they learned to be responsible for their own learning. They claimed that they were forced to learn about the latest technology, software, applications, and tools to ease their online learning process which benefit them in the future. Besides, the students also had flexibility in learning as they could revise the recorded online classes repeatedly anytime convenient to them. Finally, online learning helped the students to manage their finances more effectively as they did not have to spend on transportation, accommodation, and other costs involved if they attended physical classes on campus.

On the negative side, it is challenging for the students to adapt to digitalized education as they had difficulties to stay focused as they faced a lot of distractions such as addiction to social media and online games. Another challenging part in adapting to digitalized education was poor internet connectivity which had caused them to be physically and mentally exhausted due to having to put in extra efforts for each lesson they missed out.

Initially, online learning was quite tough for them, but after a few months, they managed to adapt to online learning, and hopefully, they can complete their studies with excellence. These students are Generation-Z who are characterized as digital citizens [10] that are willing to adapt to any digital transformation and able to cope with online learning which makes them ready to learn online independently.

There are several suggestions that can be considered in increasing students' motivation in online learning. For instance, lecturers need to constantly plan and implement educational resources that keep students motivated and stay positive. Next, universities or higher education institutions need to enhance their internet infrastructures especially in ensuring quality internet connection for students, and lastly, the government needs to develop or improve internet facilities especially in rural areas.

Despite the significant contributions from this research, the findings of this study are limited in some aspects. The study was limited to one public university, thus the findings cannot be generalized to students from other universities. However, the study provides valuable insights from students especially on the mental and physical preparation required in online learning. Future research should involve private university students as they might have different experience related to online learning.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

AUTHOR CONTRIBUTIONS

Adriana Shamsudin, Nur Farahah Mohd Pauzi and Mohd Syazwan Karim conducted data collection procedures with respondents including the process of analysing written responses by the respondents, developing the interview questions, transcribing recorded interviews, analysing the transcribed interviews using ATLASti 8 and conducting a focus group discussion with respondents to validate the analysis. Informal discussion with other teaching lecturers has also been performed by all the four researchers to ensure the objectivity and reliability of qualitative online interviews. Research writing is divided as follows; Siti Nurulhuda Mamat was responsible for Introduction and Review of the Literature. Adriana Shamsudin was responsible for Research Methodology and subsequently wrote the findings and discussion with Nur Farahah Mohd Pauzi. Mohd Syazwan Karim was responsible for drawing conclusions. The paper has undergone English editing and proofreading by a qualified English Editor to ensure the quality of the paper is free from major language issues. All authors have approved the final version.

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