

COVID-19 and digitizing accounting education: empirical evidence from GCC

Adel Sarea

*Department of Accounting and Economics, College of Business and Finance,
Ahlia University, Manama, Kingdom of Bahrain*

Abdulla Alhadrami

*Department of Business Administration, University College of Bahrain, Manama,
Kingdom of Bahrain, and*

Ghilan Al-Madhagy Taufiq-Hail

*Department of Computing, College of Arts and Sciences,
University Utara Malaysia (UUM), Sintok, Malaysia*

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Abstract

Purpose – The main objective of the study is to investigate the effect of COVID-19 on accounting education in the higher education (public and private universities) in the Gulf Cooperation Council (GCC).

Design/methodology/approach – The study is explorative in nature conducted with quantitative survey approach and using purposive techniques in collecting data. The sample focuses on the teaching staff at public and private universities in (GCC), Kingdom of Saudi Arabia, United Arab Emirates, Bahrain, Kuwait, Oman and Qatar during the COVID-19.

Findings – This study presumed to highlight some of the emergent issues faced during the pandemic pertaining the aspects of the COVID-19 and digitizing accounting education and its effect on future direction of digital education.

Originality/value – To the best of the authors' knowledge, this study is the first academic paper to study the effect of COVID-19 on accounting education in the higher education in the GCC.

Keywords GCC, COVID-19, Digitizing accounting education

Paper type Research paper

1. Introduction

The COVID-19 pandemic has triggered the greatest disturbance in history of education, with almost universal impacts on students and teachers worldwide. This pandemic affected all sectors all over the world including the educational sector. UNESCO reported on April 1, 2020, that 189 countries announced the closure of all kind of educational institutions that affected 1,542,412,000 out of the total enrolled learners (89.4%). However, late July 2020, the



number of affected learners dropped to 1,066,817,855 including learners enrolled in tertiary education. This number constitutes 60.9% of the total learners in 107 countries (UNESCO, 2020).

Worldwide, many universities decided to convert the mean of teaching from the traditional one (face-to-face) to online learning, at the same time all in-campus activities have been cancelled or postponed until further notice (Sahu, 2020). Most universities are well equipped for online learning through investing in learning management systems (LMSs) (such as Microsoft Teams and Blackboard) (Lim, 2020). These LMSs enable the instructors to interact with their students virtually through live or recorded lectures, chatting, online exams and quizzes and assignments. However, some faculty members and students might face challenges in coping with the new way of delivery.

In a study conducted by the International Association of Universities (IAU) to investigate the impact of COVID-19 on the higher education globally, a global survey was distributed to 9,670 higher education institutions, out of which 423 institutions from 109 countries answered the survey fully. The results indicated that all institutions were affected in this pandemic. Almost all higher education institutions (HEIs) said that the learning process has been affected. That the majority (67%) of the participants experienced a transition from the traditional learning (fact-to face) to online learning. Whereas 24% of the institutions reported that they are working on developing solutions that guarantee the continuation of the learning process. The majority of HEIs stated that all campus activities were cancelled. High percentage of the institutions (91%) declared that they are well equipped to communicate effectively with their students and staff. Financially, 81% of the surveyed institutions expected low enrollment of new students, which will have serious consequences on their institutions financially. In terms of assessment, more than 50% of the institutions declared that exams will be conducted as planned, out of these institutions 94% said that they will apply new measures of performance and 6% will conduct the examinations as usual.

On the other hand, the IAU global survey revealed that HEIs faced several challenges during the sudden transition to distance learning that relates to the technical infrastructure, competencies and pedagogies of the online learning and the study field. In terms of infrastructure, some institutions in low- and middle-income countries reported that the majority of their students lacks access to the internet because they cannot afford its cost. Other institution in high-income countries reported that they were not prepared for this transition because of financial implication of investing in LMS. Additionally, some institutions were concerned of the unequal learning opportunities among students, that some of them may have good access, whereas others do not. In terms of the competence and pedagogical challenges, several institutions revealed that distance learning requires a unique pedagogical approach to maintain the quality of the face-to-face learning, but the sudden transition did not allow them to prepare the faculty members to this new technique. This caused lack of the necessary competence among the faculty members. Another major challenge raised by the institutions participated in this study that distance learning cannot work effectively with all fields of study, for example, the practical fields of study such as medicine studies and other studies that depend on laboratories cannot be effective unless the existence of reliable online learning tools.

The discussion above shows that universities worldwide have been affected dramatically by this pandemic, in terms of providing effective and qualitative education to their students during the period of this crisis. Though most of the universities are well equipped to complete their educational services to their students, but they faced some challenges because of the sudden transition to distance learning, especially in the low-income countries.

Accounting education is an attractive field of study for young students globally because it is an essential stage for skilled and talented accountants that are required by the profession. Accordingly, if accounting education is affected negatively, this will have bad consequences on the profession. Therefore, the research design of this study attempts to answer a broad question about the impact of COVID-19 pandemic on accounting education in the higher education (public and private universities) in the Gulf Cooperation Council (GCC) in terms of digitizing accounting education, the assessment of accounting students, self-efficacy of the accounting instructors and lecturing timing.

2. Literature review and hypotheses development

In this section, researchers discussed several issues related to the impact of COVID-19 on the educational sector in GCC, digitizing the accounting education, COVID-19, the evaluation process of accounting students, online teaching self-efficacy of the faculty members and lecturing timing during COVID-19 pandemic.

2.1 Impact of COVID-19 on the educational sector in Gulf Cooperation Council

GCC countries like the rest of the world were affected by this crisis, the first closure of all educational institutions started on February 25, 2020, in Bahrain, followed by United Arab Emirates on March 8, 2020, then Saudi and Qatar on March 9, 2020, followed by Kuwait on March 12, 2020, and finally Oman on March 15, 2020. The total number of affected learners in GCC countries is 12,085,898 learners according to UNESCO statistics (UNESCO, 2020a; 2020b). The highest number of learners affected is in Saudi with a total number of 8,410,264, which constitutes around 69.5% of the total learners in all GCC countries. The lowest percentage of affected learners was in Qatar with a percentage of 1.44% of total affected learners in GCC countries. All higher education institutions in the GCC countries moved to e-learning system using different LMSs, such as Blackboard, MS Teams, Big Blue Button and other learning platforms (Bensaid and Brahim, 2020).

The majority of the GCC's universities is equipped with LMSs that enabled them to have smooth transition from the traditional learning to the online learning. This was done using different online platforms such as Zoom, Microsoft Teams, Blackboard, Google classroom and other platforms (Bensaid, and Brahim, 2020). This was performed using to provide virtual in-class activities such as video lectures, seminars and class debate, besides uploading the necessary documents for learning process. All library services and registration were made online as well.

In terms of assessment mechanism, the ministry of education in each country was in a continuous contact with the universities to assure the use of a fair and effective mechanism to evaluate the student's performance such as online exams through the LMS, open-book exams or replacing all exams by assignments. However, some GCC countries such as Bahrain and United Arab Emirates gave the right for the students in universities either to include their final marks in their CGPA or not (Bensaid, and Brahim, 2020). In Saudi, the students were given the opportunity to postpone their study in the second semester or to withdraw from the courses. The Ministry of Education in Kingdom of Saudi Arabia instructed the higher education institutions to calculate the student grade based on their current semester average mark or the past year grade, but without any negative effect on their CGPA, that if the new mechanism reduces the student's CGPA, then the previous CGPA remains (Sfeir et al., 2020).

It is expected that COVID-19 pandemic will benefit the accounting profession, because there will be lower-cost education because of the online transition. This shift to online education will enable students to save cost and time, which in turn will profit them (Zarret,

2020). However, the accounting education during the current crises might face several challenges that might affect the quality of outcomes. This includes the student's evaluation process, the faculty members' self-efficacy, digitizing the accounting education and the lecturing time and teaching methods.

2.2 Digitizing the accounting education

Digital education refers to the process of using technology in education, which is called technology-enhanced learning or e-learning. Historically, the Accounting Education Commission (AEC) called for the importance of rehabilitating the accounting education to be more relevant to the practice, to produce more qualitative accountants (AEC, 1990). One of these reformations is to incorporate technology in accounting education. Using recent technologies in accounting education became one of the most important priorities to improve the profession (Elliot, 1992; Walsh, 1998). Accordingly, this type of learning becomes popular in the business schools across the world (Friday *et al.*, 2006). Watson *et al.* (2007) found the use of these systems by accounting educators is increasing sharply. Albrecht (2000) argued that there is a need for better teaching methods to deliver the accounting subjects because of the accelerated development in accounting context. Accordingly, an increasing interest in virtual learning was raised (De Lange *et al.*, 2003; Marriott, 2004).

Currently, most of the universities all around the world are investing in LMSs. The integration between the internet and accounting education is seen as a helpful way to the instructors to assess the students electronically and provide e-feedback. This caused boundless growth of e-learning in general and in accounting education in particular (Mihret *et al.*, 2017; Helfaya, 2018). Using technology in education enables educators to get constructive and timely feedback from learners about the effectiveness of the teaching and learning methods used in delivering the material (Race, 2005; Mihret *et al.*, 2017). Helfaya (2018) found that students appreciated using e-assessment and feedback techniques in teaching accounting subjects.

The flexibility of e-learning in terms of time and place for both students and teachers led to the fast spread of this type of learning (Al-Hadrami and Morris, 2014). However, the lack of human interaction between learners and instructors was the main criticism for this type of learning (Laurillard, 2003). Digitizing the accounting education might be useful in terms of flexibility but educators may be concerned about the students' learning and knowledge (Humphrey and Beard, 2014). The lack of an effective learning process because of the sudden transition to e-learning might lead to unexpected consequences that might affect the student's future professional prospects (Aguguom *et al.*, 2020).

2.3 COVID-19 and the evaluation process of accounting students

One of the side effects of the sudden transmission to online learning because of this pandemic is the influence on students' performance. The effectiveness of e-learning was one of the major subjects discussed by several researches in terms of its influence on students' performance (Dziuban and Moskal, 2001; Dowling *et al.*, 2003; Davis and Graff, 2005; Nakayama *et al.*, 2006; Al-Hadrami and Morris, 2014). These studies showed mixed results, that some studies found positive impact on the students' performance and other did not find any impact, but no studies found negative impact on students' performance.

Al-Hadrami and Morris (2014) conducted a study to investigate the main factors that affect students' performance in web-based accounting courses in a university in Jordan. The researchers used mixed research methods (interviews and questionnaire) and the results showed that the environmental factors that include instructors' interactivity, the efficient

use of technology and the learning environment have significant and major impact on the students' performance measured by the student's final grade.

Other studies conducted a comparison between the students' performance in e-learning and traditional learning, the results indicated no significant difference between the students' performance in both types of learning (Gagne and Shepherd, 2001; Arbaugh and Stelzer, 2003).

It is important to have an effective and efficient assessment method to determine whether students are learning or not. There are mainly two types of assessments methods: summative and formative assessments. In the summative assessment, students are examined to determine the level of learning goals achieved. Whereas the formative assessment is a continuous evaluation process by the teacher to understand the learners needs. Because of the current closure of all education institutions, it becomes more important to apply more formative assessments to get better understanding of the students' learning (Lieberman *et al.*, 2020).

In terms of exams during COVID-19 crises, UNESCO recently distributed a survey to 84 countries to collect information about how the educational institutions conducted the end of semester exams. Out of these, 58 countries reported that they had re-scheduled or postponed exams, some countries provided alternative assessment methods such as home-based exams and online tests and other countries cancelled all exams and replaced with assignments, projects and other course work assessment methods (UNESCO, 2020a, 2020b).

2.4 Online teaching self-efficacy of the faculty members

Teaching self-efficacy is one of the most important factors that impacts the instructor's success in the educational process, because this anticipates the instructors' capacity to face inevitable challenges in the online teaching environment (Horvitz *et al.*, 2014). Instructors' self-efficacy toward the virtual learning environment plays a major role in accomplishing successfully the tasks assigned to them (Jia *et al.*, 2014). Zheng *et al.* (2018) found that the most important factor that enhances faculty self-efficacy toward the LMS is the availability of organizational support, such as providing sufficient training and technical support.

Before the incident of COVID-19, several studies were conducted to explore the challenges faculty members face in online teaching and found that the technological concerns such as the reliability of the technology, availability of technical support, the technology competence of the instructors and students, the huge workload and the lack of human interaction were the most important challenges raised by the faculty members (Perreault *et al.*, 2002; Liu *et al.*, 2007; Shea, 2007).

The efficient use of technology mainly depends on the users' acceptance and his/her perception of these technologies, especially in the educational process. Lee and Tsai (2010) conducted a study to explore teachers' self-efficacy toward using internet in the teaching process. They found that higher self-efficacy was found among teachers who have more experience in using the Web.

Though most of the universities around the world are equipped with LMS, the faculty members are not well prepared to deliver their courses virtually because of sudden transition from the traditional to the virtual teaching. Accordingly, the fast transition of education to online learning might present a threat to education quality because of the shortfall in the instructors' teaching self-efficacy (Horvitz *et al.*, 2014).

2.5 Lecturing timing during COVID-19 pandemic

Because of the current situation, instructors moved quickly from the traditional teaching to online teaching, But, does this sudden transition make them to dedicate more time for

lecturing or not? Faculty members perceive online teaching more time consuming than the traditional one (Van de Vord and Pogue, 2012). Virtual learning requires instructors to incorporate online activities, which have positive impact on students' engagement, attitude and performance (Vatovec and Balsler, 2009). This make online teaching more exhausting than the traditional one in the view of faculty members (Harber and Mills, 2008; Bolliger and Waslik, 2009). The literature showed mixed results with regard to the time spent in online and traditional teaching. Some studies found that online teaching takes more time than traditional teaching (Tomei, 2006). In contrast, other studies found that traditional learning takes more time than e-learning (McKenney *et al.*, 2010). Hislop and Ellis (2004) found that teaching time for both types of learning is similar.

Worley and Tesdell (2009) conducted a study to investigate whether online teaching consumes more time from the instructors than the traditional one. The study was conducted on the same course with four sections: two online sections and two face-to-face sections. The instructors recorded every minute spent on every task related to each course. The results indicated that the overall time spent on both learning styles was similar, but the time per students was greater by 20% in the online teaching.

Van de Vord and Pogue (2012) conducted a study to investigate whether online teaching takes more time than the traditional one. The researcher's time logged the online courses and the traditional courses. The results indicated that, in general, the traditional teaching (face-to-face) takes more time per student than the virtual learning. However, the time log shows that online learning consumed more time than the face-to-face teaching in some activities such as student's work evaluation, recording grades and technical issues.

3. Methodology

3.1 Research method

This research is explorative in nature that aims to explore the impact of COVID-19 on accounting education in the GCC countries. This study used quantitative survey instrument using non-probability purposive sampling and snow-ball techniques procedure to collected data.

3.2 Measurements' development

The development of the questionnaire items was guided by the literature. The questionnaire is divided into five sections. The first section collects information about the impact of COVID-19 on accounting student's performance. The second section collects data about digitizing the accounting education, followed by a section that relates to the self-efficacy of the lecturers and teaching staff and the fourth section is about the impact of the current pandemic on the lecturing time and teaching methods followed. Finally, the last section collects the demographic profile of the respondents.

Before the final distribution of the survey, an initial copy of the instrument was submitted to number of academicians and experts in the field of questionnaire development to give their feedback on the wording, the content, the appropriateness of the questions, the coverage of the dimensions of the current COVID-19 outbreak as perceived by the researchers, the simplicity of the questions and the presentation. Amendments made to the final version and the actual survey was disseminated to the target respondents of lecturers working in the private and public higher education institutes in GCC.

All items of the model constructs are rated on five-point Likert scale ranging from (1) strongly disagree to (5) strongly agree.

3.3 Sample and data collection

The unit of sampling recruited is the teaching staff at the higher education institutes at public and private universities in GCC. Exploratory studies widely apply the convenience sampling to collect the necessary data. Accordingly, this study applied convenience sampling to collect the research data. According to this sampling method, data will be collected only from those who agree to participate in the research. The online survey was used to get the responses as a result of the COVID-19 outbreak. The collected responses were 109 from public and private universities in GCC. However, the valid number of responses is 102 after eliminating the incomplete responses.

Descriptive analysis technique was applied to analyze the collected data. This technique was used to explore the faculty perception regarding the impact of COVID-19 pandemic on different aspects of accounting teaching and learning areas in the GCC countries.

4. Results and discussion

4.1 Demographics analysis

For the demographics analysis, the gender, the age group, the experience and the academic degree is evaluated. As shown in [Table 1](#), the number of males and females were 39.2% and 60.8%, respectively. Regarding the age, it has been found that the dominant age group is group 4 (43–50) with 27.5% and group 3 (34–42) with 23.5%.

With regard to the education sector, the dominant sector is the private sector with nearly 60.8% and the public sector with nearly 40%. However, [Table 1](#) has more details with respect to mean, standard deviation, minimum and maximum, frequency and percentage.

4.2 Research analyses and evaluation

From the graph ([Figure 1](#)), majority of the educators emphasized that COVID-19 changed and made the assessment of accounting students' engagement with educators more effective. Remarkably, 77% of the educators in GCC countries agree (40% strongly agree and 33% agree) that assessment of accounting students' engagement with them became more effective during the COVID-19 pandemic. On the other hand, 10% disagree and 17% were neutral. Hence, from the majority results, we could say that the general perception of the assessment of accounting students during the COVID-19 crisis is a crucial role and engagement with educators became more effective during the outbreak.

Next, as can be seen in [Figure 2](#), more than 85% (65.4% strongly agree and 20% agree) of the educators support using the online open-book exam type, whereas minority (9%) disagree with this scenario. This result gives an indication of the current trend to use the online exams in teaching at the university level. Besides, it is also clear that most of educators are fully using the online distance learning and supportive during this pandemic. In other words, the COVID-19 changed the face of the traditional education dramatically toward online education including the assessment methods.

[Figure 3](#) shows the educators' perception with regard to the impact of COVID-19 on digitizing accounting education. Nearly 80% agrees or strongly agrees on the notion of changing the education into digitized method instead of the traditional way of teaching and tutoring students at higher education institutes in GCC. However, only 10% disagrees or strongly disagrees on this issue. The researchers could say that apparently those majority believe in change and feel the transformation of education in the near future rather than those who tries to ignore or at least neglect the reality that may be overwhelmed in the coming academic year in 2020/2021.

In related topic of digitizing accounting education ([Figure 4](#)), the focus is on probing the opinion of adopting and changing the education into a digital form at higher education

Attribute	Mean	SD	Min	Max	Freq	(%)
<i>Gender</i>	1.61	0.49	1	2		
Male					40	39.2
Female					62	60.8
Total					102	
<i>Age group</i>	3.04	1.36	1	6		
1. Less than 25 years					17	16.7
2. 25–33 years					20	19.6
3. 34–42 years					24	23.5
4. 43–50 years					28	27.5
5. 51–58 years					9	8.8
6. Above 58 years					4	3.9
Total					102	100
<i>Experience</i>	2.33	1.04	1	4		
1. Less than 5 years					27	26.5
2. 5–10 years					30	29.4
3. 11–15 years					29	28.4
4. More than 15 years					16	15.7
Total					102	100
<i>Institute type</i>	3.25	1.15	1	2		
1. Private					62	60.8
2. Public					40	39.2
Total					102	100
<i>Country of residence</i>	2.96	1.79	1	6		
1. Kingdom of Bahrain					25	24.5
2. Kingdom of Saudi Arabia					30	29.4
3. Kuwait					13	12.7
4. Oman					8	7.8
5. Qatar					10	9.8
6. United Arab Emirates					16	15.7
Total					102	100
<i>Country of origin</i>	9.34	3.93	1	19		
Australia					1	1.0
Bangladesh					3	2.9
Canada					1	1.0
Egypt					3	2.9
India					7	6.9
Iraq					1	1.0
Jordan					13	12.7
Kingdom of Bahrain					18	17.6
Kingdom of Saudi Arabia					21	20.6
Kuwait					6	5.9
Oman					6	5.9
Pakistan					2	2.0
Palestine					5	4.9
Qatar					2	2.0
Sudan					1	1.0
Tunisia					3	2.9
United Arab Emirates					4	3.9
UK					3	2.9
Yemen					2	2.0
Total					102	100

Table 1.
Respondents'
demographics

institutes (private and public sector). As exhibited in Figure 4, the graph shows an overwhelming majority of participants foresee the adoption of digital accounting education methods at the higher education institutes would be as *per se* an educational authority's requirements with total of 81%. Only 10% of the participants disagree or strongly disagree

with this issue. Accordingly, most educators believe that digitizing accounting education through the use of online learning would be the future of accounting education that COVID-19 fostered the process of this transition at the management level of these universities.

While inspecting the graph in Figure 5, it is clear that the majority with nearly 80% of the teaching staff predicts the acceptance of digitizing accounting education learning in the new era of digitizing education. On the other hand, only 8% of participants disagrees or strongly disagrees. Hence, the overall perception of the teaching staff believes that digitizing accounting education would be the common trend of education in the near future.

Figure 1. COVID-19 pandemic made the assessment of the accounting student's engagement with educators more effective

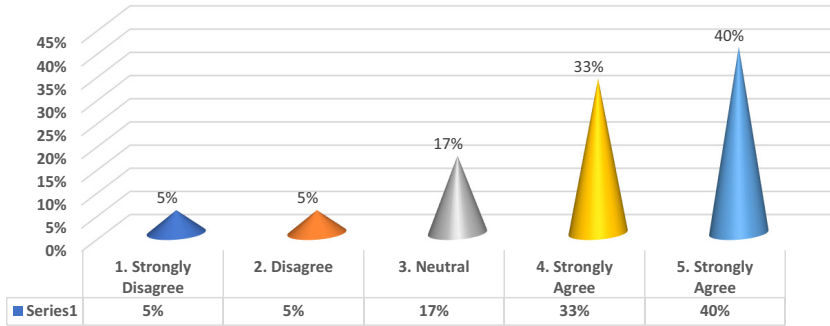


Figure 2. Because of COVID-19 pandemic, the mid-term and/or final exams were conducted online with an open-exam type

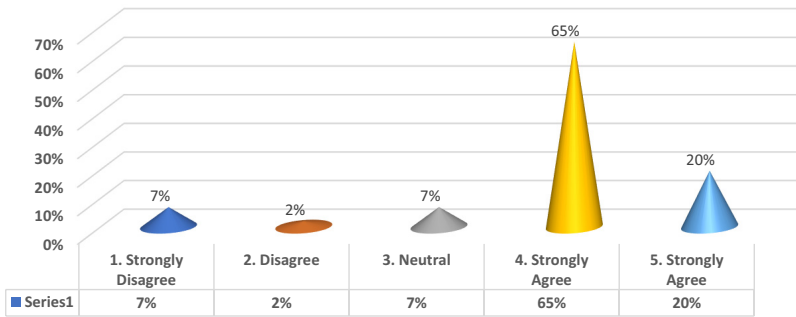
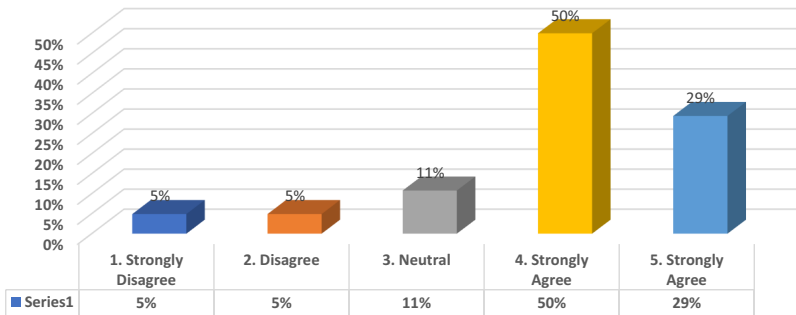


Figure 3. Because of the COVID-19 pandemic, I believe that totally digitizing accounting education would be compulsory around the globe



Next, as can be seen in Figure 6, the majority of educators is capable of using the online teaching (82%), whereas minority (8%) shows less capability of online teaching methods. This result gives an indication of the current trend to use the online methods in teaching at the university level for both private and public universities. In other words, the COVID-19 changed the way toward full online teaching methods in accounting education in higher education because educators are capable to deliver the accounting courses virtually using various teaching methods.

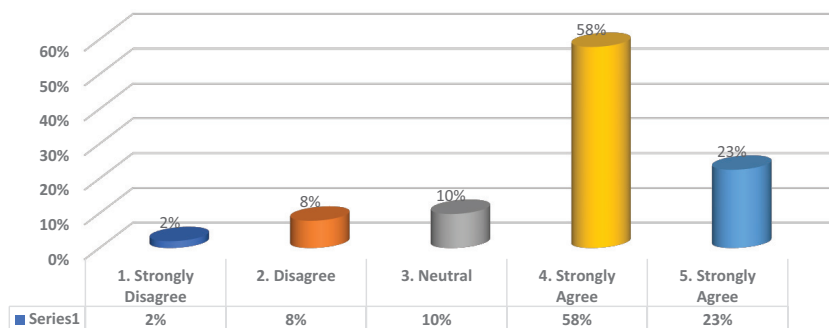


Figure 4.
Because of the COVID-19 pandemic, in my opinion, digitizing accounting education would be *per se* an educational authority's requirement

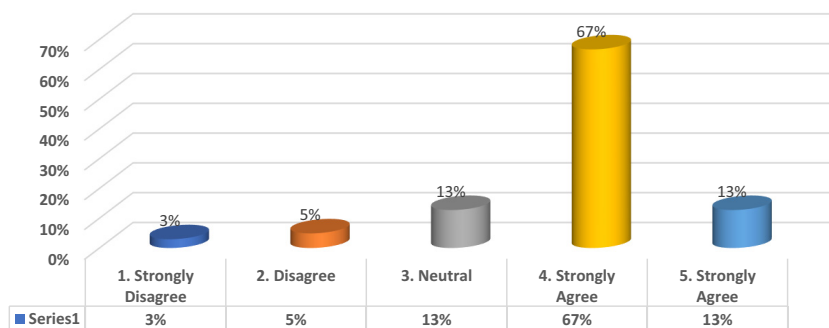


Figure 5.
Because of COVID-19, in my opinion, digitizing accounting education would be the common trend of the education institutes

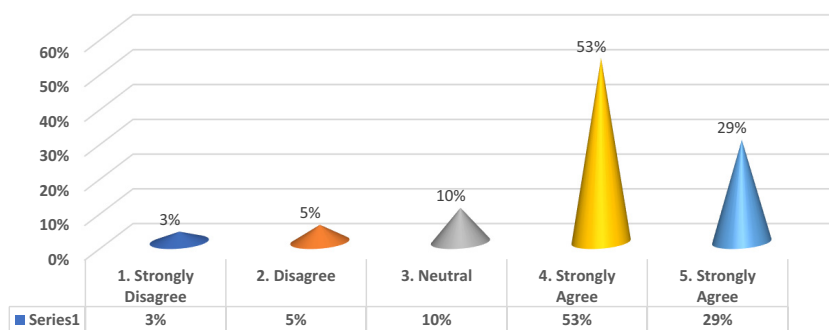


Figure 6.
During the COVID-19 pandemic, I am capable of using online teaching methods to deliver course's contents

Figure 7 exhibits the educators' response regarding the fact of possessing the necessary technical skills to use the available online teaching methods. The results show that 83% of educators believe that they possess the necessary technical skills to cope with digitizing accounting education during the COVID-19 outbreak. Contrarily, the minority (10%) disagrees or strongly disagrees on that. Therefore, it can be interpreted that most of the institutions in the GCC area are interested in training their faculty members on using the adopted LMS including the technical skills needed. However, coronavirus has made an immense need to upgrade the educators' technical skills to cope with the pandemic. Also, upskilling was not voluntarily, but a must to achieve the goals of the institution and one's objective to cover the requirements during this sensitive time.

As seen in Figure 8, the dominant feeling of responsibility during the pandemic toward the students is very clear from the respondents' response. There is no wander in that as this sudden and unexpected event hindered the continual of the semester and forced regulations that made things difficult in terms of the teaching and transforming the courses into digital format. Figure 8 exhibits that the majority of faculty is showing the patience to get acquainted with using the new digital methods to deliver course's content to the students during the COVID-19.

In Figure 9, majority (75%) of the educators believe that evaluating accounting students during the COVID-19 by online methods is sufficient. However, only 19% of the respondents, which is considered the minority of the total participants, presume that evaluating accounting students during the COVID-19 by online methods would not be an efficient evaluation technique. Accordingly, the researchers conclude that the future

Figure 7.
During the COVID-19 pandemic, I possess the technical skills to use the online teaching methods

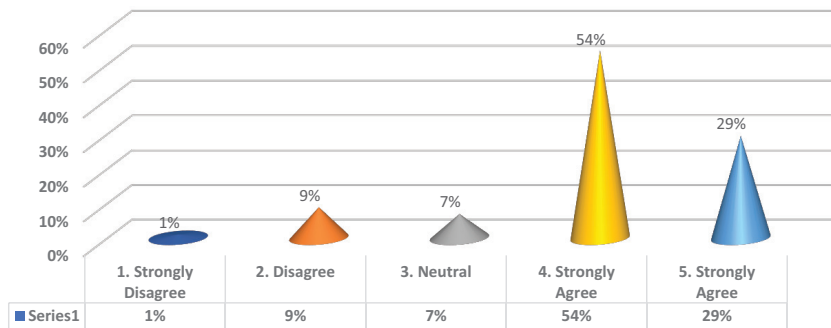
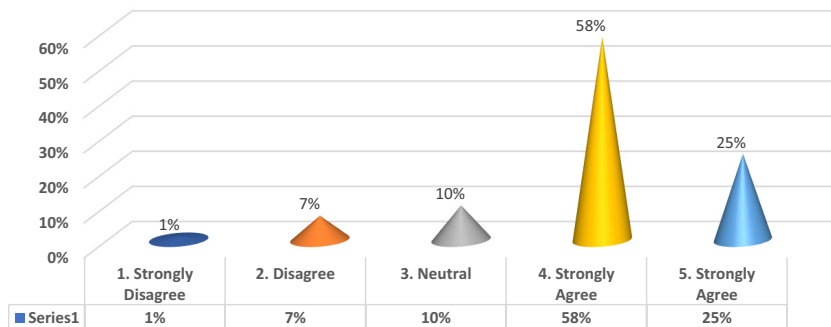


Figure 8.
During the COVID-19 pandemic, I possess the patience to get acquainted with using the new digital methods to deliver course's content to my students



direction of digitizing accounting education would be predictable based on the statistics obtained.

To test the impact of COVID-19 pandemic on the lecturing timing, the respondents were asked to estimate the number of hours they were teaching per week before and during the pandemic. As seen in Figure 10, 48% of the faculty members were teaching for 6–8 h per week, whereas 34% were teaching 9–12 h per week and only 18% of the respondents were lecturing for 3–5 h per week.

During the COVID-19. As seen in Figure 11, it can be interpreted that during the pandemic, the lecturing time dropped notably in comparison to the timing before the COVID-19. As shown in this figure, the lecturing time 35 h increased from only 18% before the pandemic to 38% during the crisis, at the same time the other two categories of lecturing time dropped remarkably. The 6 to 8 hours category dropped from 48% to 37%, whereas the 9–12 lecturing hours dropped from 34% to 23%. Accordingly, it can be interpreted that the adoption of e-learning reduced the time needed by faculty members for teaching and lecturing. This might be because of the fact the lecturers are more effective in using their lecture time and in preparing for their classes, but at the same time this drop in time might be because of the fact that instructors did not put the same efforts after the pandemic in comparison to their efforts before by eliminating some activities and assessments, such as formative assessments because of the lack of face-to-face interaction.

In Figure 12, majority of the respondents (37%) seems to use Microsoft Teams as a main tool to help them in their pedagogical process. As a second tool, the use of the institute's online tools with (24%) the Zoom appeared to hold the third majority (20%) of software used

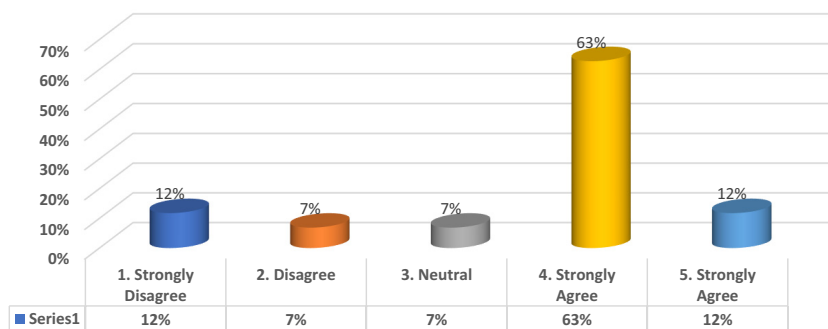


Figure 9. Because of COVID-19 pandemic, I think that evaluating accounting students by only online teaching methods is efficient

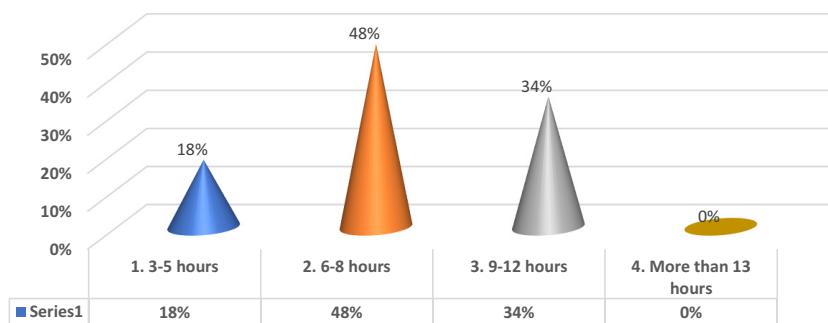


Figure 10. Before the COVID-19 pandemic, in average, how long did you spend for teaching/lecturing in class per week?

to help educators at the university. The fourth tool is the Google Classrooms, which achieved 8% of the total respondents. The fifth position is for the YouTube, WebEx and Facebook live with 4%. These results shadow the dominant role of Microsoft and Zoom software tool packages in leading the pedagogical process using online method. These results indicate that universities in the GCC area focus on the educational platforms that provide more interactive teaching environment.

5. Conclusions and recommendations

The outcome of the study revealed interesting results of the crucial role of COVID-19 in the transformation process of digital education in general and accounting in particular. Accounting faculty members in the GCC have positive perception toward the influence of the viral outbreak on the teaching methods and the transformation to the online distance learning. The results indicated that the accounting educators have changed their teaching methods to cope with the dramatic change in the delivery method as a result of the of COVID-19 outbreak. On the other hand, the implementation of online learning in the accounting education as a result of this pandemic improved the lecturer efficiency in managing their time, because the weekly time needed for lecturing and preparation has dropped. Before the pandemic, the majority of the respondents reported that they needed more time in comparison to the time need during the crisis. According to the study results, the focus of the educational institutions in the GCC is on the interactive LMS such as Microsoft Teams and Zoom to support the e-learning process, because these systems enable them to interact with their students and meet their needs. All these feedbacks gave a clue about the effect of COVID-19 pandemic on the transformation of accounting education into the digital era. Most of the surveyed educators perceive that digitizing accounting education would be compulsory and the higher education

Figure 11.
During the COVID-19 pandemic, in average, how long did you spend for teaching/lecturing in virtual class per week?

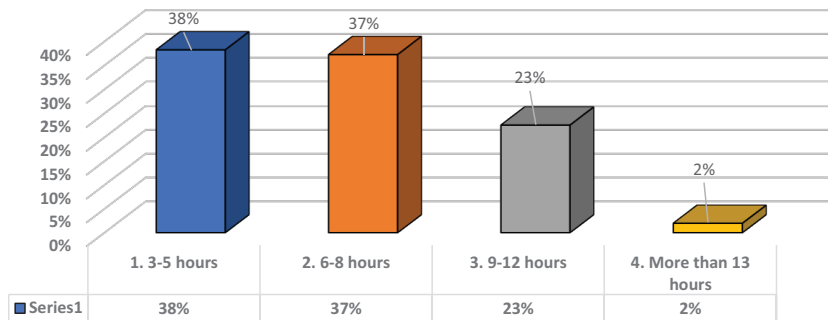
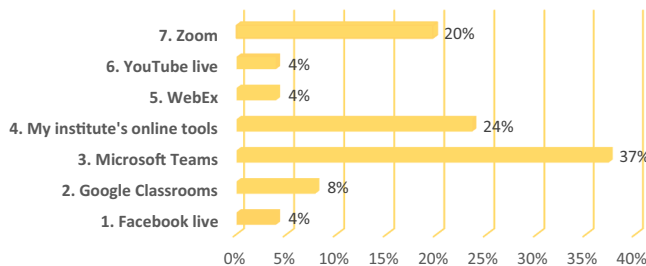


Figure 12.
During the COVID-19 pandemic, which online software tools do you use in your online sessions?



institutes would follow the queue in implementing programs to support this type of education. Moreover, the accounting educators believe that the future of accounting education is started with this pandemic and there is no way back.

Regarding the role of COVID-19 on the readiness of the teaching staff, the results revealed the consent of the majority of the respondents that this pandemic increased their responsibility toward students. Though the respondents indicated that they possess the necessary technical skills, there is a need to enhance their technical skills and learn new techniques as well as putting more efforts to cope with the new challenges to meet the organization's objectives and goals and to achieve their schedule and pedagogical objectives. The main objective of this research is to investigate and explore the perceptions of the teaching staff in GCC. The limitations found in any research and this research is not an exception in that a supportive qualitative interview with open-ended questions is recommended to support this explorative study. Therefore, future directions should consider this point. To improve the generalizability of this study, it is recommended to conduct other global parallel studies that cover other countries and cultural.

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Corresponding author

Adel Sarea can be contacted at: adelsarea@yahoo.com

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