

DOES E-LEARNING ENHANCE ACCOUNTING STUDENTS' EMPLOYABILITY SKILLS? A QUALITATIVE STUDY OF UNIVERSITY STUDENTS IN OMAN

Md. Mohammed Muneerali Thottoli

Faculty of Business and Communication, Universiti Malaysia Perlis
& University of Nizwa

Md. Aminul Islam*

Faculty of Business and Communication, Universiti Malaysia Perlis
(Corresponding author)

Marniati

Department of Health Sciences, Ubudiyah Indonesia University

Shamsuddin Ahamad

School of Business, University of Liberal Arts Bangladesh

Md. Sharif Hassan

Faculty of Business and Communication, Universiti Malaysia Perlis
& Department of Business Administration, University of Asia Pacific

Abstract

This paper aims to explore, is e-learning standardize accounting students' employability competency among students from Universities in Oman using a qualitative approach. A semi-structured interview survey by applying purposive sampling techniques was employed to choose target respondents. This technique was employed to select students who are currently studying from Universities in Oman through e-learning mode. Only accounting major students were included in the sample size depending on their proficiency in accounting acquired through blended e-learning mode. The main findings of this paper show that e-learning standardizes accounting students' employability competency among students in Oman. It is evidenced that the innovative use of information technology tools for e-learning both by teachers and students enhanced accounting students' academic performance, perceptions, and practical skills in an e-learning environment. Thus, the e-learning approach is believed as a powerful technology-integrated teaching design in accounting courses. At present, as a precautionary measure of Covid-19 universities are conducting online teaching. Hence e-learning has considered a massive potential in Oman. The current study might be beneficial for the higher educational institutions in Oman and similar emerging countries in identifying accounting students' competency in e-learning by using advanced information technology for career development. This research study contributes to finding the fundamental aspects of e-learning self-centered innovative application of technology tools by teachers and learning practically by using such tools in accounting courses by students at universities in Oman.

Keywords: *e-learning, accounting students, employability skills, university, information technology tools, Oman*

1. Introduction

Analytical thinking and real-time practice are considered as foundations for every career in accounting. Achievement of accounting employability skills can be achieved through a continuum of practical doing and learning which originally fascinate teachers. This practice will develop students' employability skills and equip them to manage and work in the current competitive environment. Learning accounting concept is an activity carried through teachers and students which aims to build students' career and educational competency (Zhao, 2018). Presently, advanced automation, artificial intelligence, and machine learning are influenced in accounting competence among students (Aldredge *et al.*, 2021). Skills such as basic computer skills, stringent attention to accounting concepts, a few math background skills are needed for developing an accounting career. The accounting profession in developed countries attempts to hire and retain skilled professionals, who possess professional, technical, theoretical, and practical competence in accounting practice (Ariaillet *et al.*, 2020).

The problem of accounting student employability had been a huge concern for employers who believe that fresh graduates from university had not enough competency for their job (Lim *et al.*, 2019). The conventional theoretical-based accounting curriculum scheme did not develop students with the necessary skills expected to apply the accounting concept in international business environments. Educational institutions ought to build an integrated competency-based teaching method (Zhao, 2018).

A few theoretical bits of knowledge may not help fresh graduates to build their dream careers in the accounting profession. Increasingly companies choose applicants who have practical accounting competencies from day one. Moreover, if a fresh graduate can work in the accounting field only if he knows at least basic skills in using Microsoft excel.

Many higher educational institutions, during the Covid-19 pandemic, aimed their teachers and students to encourage to use online teaching tools to maintain the learning procedure. The introduction of technology tools established an alternative for teaching and evaluating accounting courses. Faculties might use the latest available technologies to communicate with their students (Alhawsawi, 2020).

It a fact that the students who had acquired practical accounting training from organizations are more competent than a student who possess a mere graduate degree from colleges. Due to the Covid-19 pandemic, the lockdown has made impel entire educational institutions to undergo teaching via e-learning methods. This practice has been continued by higher educational institutions in Oman for more than a year. Thus, the above-mentioned challenges and the current e-learning practice of higher educational institutions in Oman had inspired the researcher to examine the real problems or benefits among university students in Oman. Hence the main aim of this paper is to explore, is e-learning standardize accounting students' employability skills among students from Universities in Oman.

Conceptual framework

To gather information about accounting students' employability skills, semi-structured interview questions were created. The semi-structured questionnaire was designed to fulfill the three research goals of selected students who were studying Universities in Oman through e-

learning mode by considering the influential factors of accounting students' employability skills in Oman. The semi-structured interview format used in this study is shown in Figure 1.

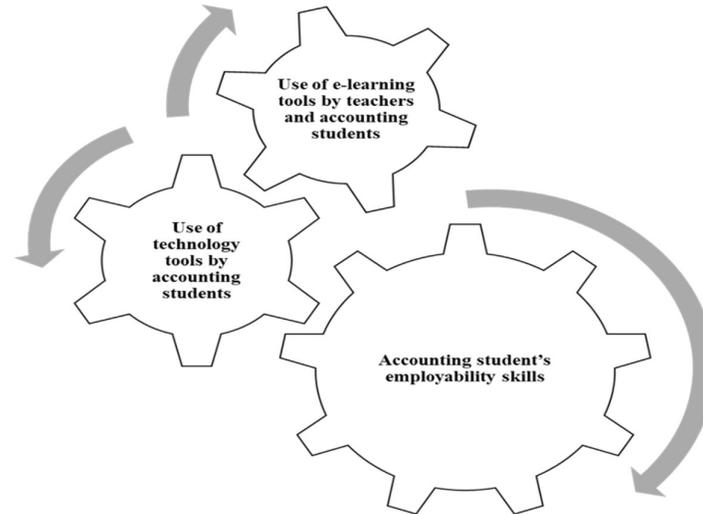


Fig 1. Conceptual framework

2. Literature Review

2.1 Accounting student's employability skills

The use of information technology (IT) tools and learning styles among accounting undergraduates within a competency-based education model were discussed by (Granados and Jaramillo, 2019). Accounting education had prepared students to equip them to work and improve by themselves. This is considered an important aspect of accounting educators globally which pressures universities and colleges to develop employability skills of students, accelerated by extensive measurement of established performance using graduate employment metrics (Jackson and Meek, 2021). The competencies in the relationship, capability, analytical, and locus of control had a significant effect on the readiness among accounting major students in connecting in the present world of industrial revolution era 4.0 (Saraswati *et al.*, 2020). A new approach involving computer science and accounting concepts using information system in teaching are significant (Idris *et al.*, 2020).

2.2 Use of e-learning tools by teachers and accounting students' employability skills

The process of accounting education evidenced that university lecturers and students were expecting massive changes in the process of accounting teaching methods to include more technology tools (Efimova and Rozhnova, 2020). It has been observed that numerous challenges are facing by teachers in performing e-learning during the outbreak of the Covid-19 pandemic (Lestiyawati, 2020). The accounting learning process should include teachers, educators, and friends who provide considerable influence on accounting students' intentions (Hatane *et al.*, 2020). Proficiency in the topic and broad use of technology tools in blended e-learning had improved the way of course delivery (Stevens, 2020). It has been found that classrooms for accounting students are not arranged in a manner that helps e-learning, while other subject instructors are not ready to promote e-learning for their classes. Some of the accounting instructors tend to ignore the latest technologies where the e-learning allows them to conduct at home. To facilitate accounting instructors to employ e-learning, their class

environment ought to be redesigned and equipped with necessary resources. As an encouragement, the teachers should be awarded for their immense effort on the latest technology adoption in e-learning (Skhephe *et al.*, 2020).

2.3 Use of technology tools by accounting students and their employability skills

The insights of the graduate accounting students about the importance of mounting basic practical knowledge in their education and their levels of competency achievement through the academic study were studied by (Al Mallak *et al.*, 2020). The execution of technology tools in basic courses on accounting to enhance students' practical thinking and employability skills. This can be achieved by real-time classroom action research (Nurkhin *et al.*, 2020). Accounting major students were agreed on the necessity to obtain tactical skills that allow them to work in organizations to perform accounting tasks (da Silva *et al.*, 2020). Accounting students acquire a positive approach both about the intention to improve the present accounting practical knowledge and selecting their accounting career (Hataneet *et al.*, 2020). Accounting students were strongly agreed that the effectiveness of the real-time or simulation project practices influences students' understanding and employability skills (Aldamen *et al.*, 2021).

3. Research Methodology

A semi-structured interview survey by applying purposive sampling techniques was employed to choose target respondents. This technique was employed to select students who are currently studying from Universities in Oman through e-learning mode. Semi-structured interviews were performed to gather the primary data to realize the accounting students' believe or thoughts on e-learning and their carrier competency in the education sector. Only accounting major students were included in the sample size depending on their proficiency in accounting which was acquired through blended e-learning mode. This study has conducted during the spring 2021 semester. As contended by Glaser and Strauss (1968) grounded theory is considered in the current methodology development in data collection, which is the primary source for valid findings. Gioia *et al.* (2013) have included methods of data structure which currently famous as Gioia methodology. Further, the current study has been considered the methodology suggested by Gioia *et al.* (2013). To identify the informants, purposive sampling techniques have been used. The purposive sampling techniques, included in the current study, in which the researchers who believed to obtain adequate information (Sekaran and Bougie, 2003).

4. Discussion

Below Table I presents the details of respondents. 27 respondents were under accounting major undergraduate students and the remaining 4 were non-accounting major undergraduate students. The non-accounting major students were also required to study introduction to accounting as their compulsory course. They can also choose other prescribed accounting courses as their electives. Hence, there are a total of 31 respondents were considered for the current study. The interview was made during spring 2021, the academic year 2020-2021. The selected respondents were currently studying one or more accounting courses such as financial accounting, management accounting, cost accounting, and auditing.

Table I. Respondents

Details	Respondents	Semester	Registered Courses
Accounting major undergraduate students	27	Spring 2020-2021	Financial Accounting, Management Accounting, Cost Accounting, and Auditing.
Non-accounting major undergraduate students (they study accounting courses as compulsory/electives)	4		
Total	31		

Recently numerous scholars, (Lau *et al.*, 2021; Li and Craig, 2020; Hataneet *et al.*, 2020), were studied accounting students' employability skills to validate the results of the current study. The interview was conducted in three phases. In the first phase of the interview, the respondents (R) were asked to describe their beliefs/thoughts about the enhancement of accounting students' employability skills through e-learning. The majority of the respondents (30 out of 31) were agreed to believe that e-learning helps to prepare ledgers and financial statements using MS Excel, Word, and other Microsoft Office tools which may not be possible in the physical or traditional class. However, one respondent (1 out of 31) did not recognize the value of e-learning. The educational institutions, as part of safety measures, are forced to teach university courses via e-learning mode due to the spread of the Covid-19 virus. This practice has been continued for the last 3 semesters. The accounting students were believed that information communication technology (ICT) enabled accounting education will certainly enhance their proficiency in accounting concepts and practical skills which leads to their employability skills. One respondent (R3) opined that “[...] *I see that Microsoft Office applications are a major complement to accounting, as all the fundamentals of modern accounting depend on these applications to record inventory, cash, bank transactions, and preparing financial statements*”. Respondent, R4 opined that “[...] *e-learning helped accounting students to use many programs such as Word, Excel, etc., which are difficult to practice in the physical classes. These programs help to prepare ledgers, tax reports and financial statement*”. Respondent, R7 opined that “[...] *believe that e-learning is the learning future and will open a great opportunities and options for students such as those committed to work, at the same time using accounting software and applications is much easier during e-learning classes compared to physical classes*”. Respondent, R11 is in the opinion “[...] *Microsoft Office tools are really useful by using Excel program, as it facilitated the calculations and the organization of the tables and arrangement can be possible quickly, and the Word program can use for recording general information*”. Respondent, R18 opined that “[...] *distance learning is very important for accounting students as it helps them understand the meanings of accounting and apply its rules faster through advanced programs that speed up solution and understanding by using Excel and Word*”. Respondent, R21 opined that “[...] *e-learning modes teaching help students to prepare financial reports, budgets report, financial control report, management audit report income statements, balance sheet, cash flow statement, and profit and loss*

statement". Reshetnikova (2020) was noted that the American Interactive Learning Center was declared in its media about introducing software for internet learning employing its blended learning technology. Likewise, Lugbom *et al.* (2020) were identified that e-learning technology tools can be exploited for teaching and learning accounting courses. The study also found that technology-enabled teaching has a significant effect on teaching accounting courses. Hence it can be concluded that the use of IT tools in teaching and learning significantly enhances accounting students' employability skills.

4.1 Use of e-learning tools by teachers and accounting students' employability skills

Recently several studies were done on the use of e-learning tools by teachers and accounting students' employability skills (Kulikowski *et al.*, 2022; San-Martín *et al.*, 2020; Goh *et al.*, 2020) to validate the results of the current study. In the second phase of the interview, the respondents were asked to share their experience about teachers/instructors' use of IT tools for teaching accounting courses. Almost all the respondents were agreed that the accounting teachers use MS Excel, Word, PPT, paint tool, and MS whiteboard to deliver accounting lectures through an e-learning platform. Among those, MS Excel, PowerPoint, and paint are noticed as increased use as a medium to deliver classes by faculties. Respondent, R3 opined that "[...] *teachers' use of these tools helps the student to understand the subject more. From my experience, the teacher who draws what he explains on the painter program stays in my memory than merely reading from a book or with PowerPoint slides. A teacher can expand his students' imaginations by drawing and explaining finds more acceptance from his students*". Respondent, R4, expressed that "[...] *Currently, due to e-learning, accounting teachers use the word, excel, PowerPoint, and paint to explain the subjects. For example, they use Excel in preparing reports to be clearer to students, and they use PowerPoint to explain the curriculum in general, and the Paint program gives them many advantages, so its use is very interesting, and teachers can explain in a better way than usual*". Respondent, R7 expressed that "[...] *E-learning provide a great opportunity for the instructors/ lectures to express the core subject online using the required applications/ software and can record the lectures for future references*". Respondent, R9 expressed that "[...] *Most teachers rely on Word and PowerPoint, and few of them use Excel and Painter*". Respondent, R11 opined that "[...] *educators use Excel and Word, as well as PowerPoint and PDF, which facilitate summarizing tables, showing adjusting entries and making it easy to refer to them in future, and they also use the painter to explain little complex things and map concepts*". Respondent, R16 expressed that "[...] *use of diversified technology tools by teachers makes it easier for the student to quickly understand accounting concepts*". Respondent, R21 opined that "[...] *teachers use a lot of Microsoft Office programs because it is easy to use, and it is suitable for explaining accounting lessons also. In these programs, the teacher can communicate the information more simply and easily to students*". Respondent, R20 expressed that "[...] *the tools that accounting teachers used in e-learning, I feel it is a very effective and good and help to understand lesson clearly and easily by use of excel sheet, painting program, ppt, word, pdf and a little bit use of internet or YouTube to show picture or video about lessons*". Thus, the majority of the respondents agree that using technology tools especially excel programs by teachers will increase knowledge and skills of practical knowledge in accounting subjects. Using MS Excel visual basic for applications (VBA) technology for cost accounting students in the classroom by faculties can successfully enhance students' practical ability to solve

questions and also ensure to increase student's ability in Excel application (Zhang, 2018). The use of the Excel program in math's practical courses facilitates instructors to design the practical concept of the subject, especially to improve the ability of junior students who have to struggle to understand practical lessons (Bernard, & Senjayawati, 2019).

The use of technology tools by teachers provides the students to think about practical applications of real problems. That will help any students to think and create a solution for real business problems in their first job. The study thus found that technology-enabled teaching, especially Microsoft Excel, has considerable attention among faculties for teaching accounting courses. Hence it can be concluded that teachers/instructors' use of IT tools for teaching accounting courses significantly enhances accounting students' employability skills.

4.2 Use of technology tools by accounting students and their employability skills.

Several studies were examined the practice of technology tools by students who have inspired by their teachers (eg., Bergmark *et al.*, 2018; Itow, 2020; Gindi *et al.*, 2020) to validate the results of the current study. In the third phase of the interview, the respondents were asked to share their experience about their use of IT for learning accounting courses. This phase of the interview was interesting to know the use of technology tools by the students for learning accounting courses. Different thoughts and experiences about the use of technology tools were expressed by the respondents. Nine out of thirty-one (29%) respondents were agreed that they are using only word programs. Twelve out thirty-one (38.70%) respondents were agreed that they use both MS Excel and word. Two respondents out of thirty-one (6.45%) were not using any technology tools. They are using only a notebook and calculator to solve accounting problems. The remaining 8 (25.85%) respondents were also agreed to use a variety of technology tools including MS Excel. Respondent, R17 expressed that “[...] *the notebook can be used and write after the explanation by teacher, and the recorded class can be used to understand more with PPTs*”. Respondent, R6 opined that “[...] *these programs (Excel, Word) and other programs such as Prezi software is also may be useful for the students*”. Respondent, R7 opined that “[...] *e-learning provides a great atmosphere for learning since they can be useful for our lecturers such as class recordings, theoretical explanation, and class practices using Excel tools*”. Respondent, R15 opined that “[...] *students use various kinds of programs (including Excel) that teachers use which help us understand topics and problems. For this example, the teacher's explanation using paint program help to visualize all kinds of concepts and topics that help us understand entire the portions*”. Respondent, R16 opined that “[...] *The student's use and knowledge of Excel through technology-enabled teaching methods may give me experience and knowledge of things that I may do in the future*”. Respondent, R21 opined that “[...] *the Excel tools are the most useful tools by the students, as they are available in every device and also easier to use in the process of preparing assignments and research, so do not use other tools such as PPT unless otherwise required to prepare presentations*”. Respondent, R23 opined that “[...] *we use several programs to practice such as words, excel, painter, and others*”. Respondent, R3 opined that “[...] *we face difficulty in using these tools (especially MS Excel) as they require more experience in using them and require high skills. But I think that these tools are very necessary for the student in his studies and practical future career. I hope that my skills will develop in the Excel program as it is the basis of financial accounting*”.

From the above opinion, it can be concluded that the majority of students are agreed to use Excel tools for accounting classes. Lack of prior basic skills in Excel are the main constraints before the students. Some of them use only MS Word to solve accounting problems. They do not have even thought that they can do accounting exercises using Excel Program. The skill to use various types of technology tools has considered essential for students enrolled in the accounting profession. It has been found that faculty should recognize the importance of MS Excel and the necessity to increase students' overall competence in Excel. Hence, university accounting programs require to offer students with sufficient skills and practical learning exercises using MS Excel (Lee *et al.*, 2018). If higher educational institutions intend to educate accounting students to be important players in advising present and potential business opportunities in an exceptionally ambiguous environment, technology tools to be incorporated as a compulsory measure in the educational programs. It should appropriately balance between traditional skills, by teaching accounting concepts and practices by using technology tools in teaching methods that could increase the development of the accountancy profession (Bourmistrov, 2020). Thus, an e-learning platform creates a path to enrich student's basic technical skills of accounting using technology tools including MS Excel, Word, and PPT. This technology-enabled practice by the students will increase their employability skills. Extensive use of information communication technology in both the accounting and auditing profession as evidenced by the recent study (Muneerali, 2020a; Thottoli, 2020b; Thottoli, 2021). MS Excel certification course offers accounting students a chance to build accounting technological skills which are considered an essential preparedness to their workplace. Also, experience in Excel tools and functions is considered by public accounting firms (Rotondo, 2020).

The below figure 2 depicts the practice of e-learning which standardized accounting students' employability skills. Where the faculties use e-learning tools, students are motivated to use those technology tools further with their creative application, and finally, that practice will equip them to be competent in the job market.

The employers frequently anticipate the newly graduate accounting employees to be able to carry out the assigned tasks with diligent and competent manner (Heang, Ching, Mee, & Huei, 2019). The respondents were asked to describe their employability skills through e-learning in the first phase of the interview, and 30 out of 31 agreed that e-learning aids in the preparation of ledgers and financial statements using MS Excel, Word, and other Microsoft Office tools, which may not be possible in a physical or traditional class. According to Al-Sartawi and Abdalmuttaleb (2020), e-learning improves accounting students' competency and their future employability skills. The widespread use of e-learning by accounting students be able to inspire students to learn individually to conquer the limited face-to-face time on accounting coursework. Self-guided learning facilitates students to know accounting concepts quickly (Akbar, Rizal, Islami & Hartanto, 2020).

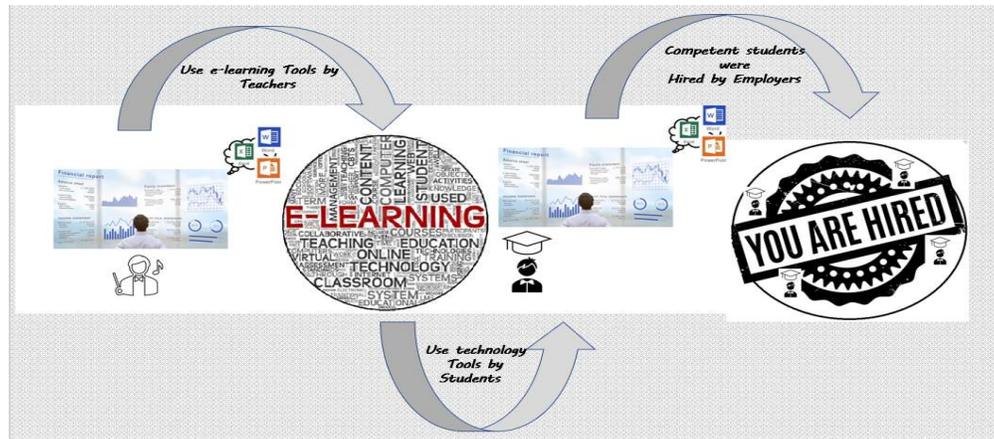


Fig 2.E-learning and employability skills

5. Conclusion

This study adds value to the theory and practice of teaching accounting courses. At present, as a precautionary measure of Covid-19 universities are conducting online teaching. Hence e-learning has considered a massive potential in Oman. The current study might be beneficial for the higher educational institutions in Oman and similar emerging countries in identifying accounting students' competency in e-learning by using advanced information technology for career development. The main findings of this paper show that e-learning standardizes accounting students' employability skills among students in Oman. It is evidenced that the innovative use of information technology tools for e-learning both by teachers and students enhanced accounting students' academic performance, perceptions, and practical skills in an e-learning environment. Thus, the e-learning approach is believed as a powerful technology-integrated teaching design in accounting courses. The success of e-learning depends on the use of technology both by teachers as well as students. Theory courses can be delivered merely by explaining using PPTs or PDF. But accounting courses should use additional tools both by teachers and students.

This research study contributes to finding the fundamental aspects of e-learning self-centered innovative application of technology tools by teachers and learning practically by using such tools in accounting courses by students at universities in Oman. Further, the study suggests implementing an excel certification course for university students.

6. Limitations and Future Research

As with previous studies, this study also has a few limitations to highlight. The current study has not covered the e-learning available resources with the students. In the future, the researchers can expand the study by including non-accounting courses. Future studies could include other constructs such as e-learning challenges facing by students, teachers, and assessments.

References

- Akbar, Y. F., Rizal, A., Islami, N. N., & Hartanto, W. (2020, May). The urgency of using online-based learning media to enhance students' self-directed learning and result study on accounting chapter of economics subjects. In IOP Conference Series: Earth and Environmental Science (Vol. 485, No. 1, p. 012137). IOP Publishing. doi:10.1088/1755-1315/485/1/012137.
- Aldredge, M., Rogers, C., & Smith, J. (2021). The strategic transformation of accounting into a learned profession. *Industry and Higher Education*, 35(2), 83-88. <https://doi.org/10.1177/09504222209543>.
- Aldamen, H., Alkhateeb, H., Kercher, K., Duncan, K., & Hollindale, J. (2021). Core competencies for the global workplace: A cross-cultural and skill-based simulation project in accounting. *Accounting Education*, 30(4), 385-412. <https://doi.org/10.1080/09639284.2021.1906719>.
- Alhawsawi, M. (2020). Preparing Accounting Students for the Labor Market after COVID-19, Opportunities, and Challenges. *Australian Academy of Accounting and Finance Review*, 5(2), 77-84.
- Al Mallak, M. A., Tan, L. M., & Laswad, F. (2020). Generic skills in accounting education in Saudi Arabia: students' perceptions. *Asian Review of Accounting*, 28(3), 395-421. <https://doi.org/10.1108/ARA-02-2019-0044>.
- Al-Sartawi, M., & Abdalmuttaleb, M. A. (2020, November). E-learning improves accounting education: case of the higher education sector of Bahrain. In *European, mediterranean, and middle eastern conference on information systems* (pp. 301-315). Springer, Cham. https://doi.org/10.1007/978-3-030-63396-7_20.
- Ariail, D. L., Smith, K. T., & Smith, L. M. (2020). Do American Accounting Students Possess the Values Needed to Practice Accounting?. In *Research on Professional Responsibility and Ethics in Accounting* (Vol. 23, pp. 63-89). Emerald Publishing Limited. <https://doi.org/10.1108/S1574-076520200000023004>.
- Bergmark, U., Lundström, S., Manderstedt, L., & Palo, A. (2018). Why become a teacher? Student teachers' perceptions of the teaching profession and motives for career choice. *European Journal of Teacher Education*, 41(3), 266-281. <https://doi.org/10.1080/02619768.2018.1448784>.
- Bernard, M., & Senjayawati, E. (2019). Developing the students' ability in understanding mathematics and self-confidence with VBA for Excel. *JRAMathEdu (Journal of Research and Advances in Mathematics Education)*, 4(1), 45-56. DOI: 10.23917/jramathedu.v4i1.6349.
- Bourmistrov, A. (2020). From educating agents to change agents: experience of using foresight in accounting education. *Journal of Accounting & Organizational Change*. <https://doi.org/10.1108/JAOC-08-2020-0122>.
- da Silva, R. J., Tommasetti, R., Gomes, M. Z., & da Silva Macedo, M. A. (2020). Accountants' IT responsibilities and competencies from a student perspective. *Higher Education, Skills and Work-Based Learning*. <https://doi.org/10.1108/HESWBL-02-2020-0028>.
- Efimova, O., & Rozhnova, O. (2020, May). Accounting Student Training Trends at Russian Universities in Digital Age. In *International Conference on Integrated Science* (pp. 263-274). Springer, Cham. https://doi.org/10.1007/978-3-030-49264-9_24.

- Gindi, S., Gilat, Y., & Sagee, R. (2020). Parent, teacher and student attitudes toward boundary-crossing teachers. *Journal for Multicultural Education*. <https://doi.org/10.1108/JME-04-2020-0022>.
- Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational research methods*, 16(1), 15-31. <https://doi.org/10.1177/1094428112452151>.
- Goh, C. F., Hii, P. K., Tan, O. K., & Rasli, A. (2020). Why do university teachers use E-learning systems?. *The International Review of Research in Open and Distributed Learning*, 21(2), 136-155. DOI: <https://doi.org/10.19173/irrodl.v21i2.3720>.
- Glaser, B. G., Strauss, A. L., & Strutzel, E. (1968). The discovery of grounded theory; strategies for qualitative research. *Nursing research*, 17(4), 364.
- Granados, S. B., & Jaramillo, M. A. (2019). Learning styles and the use of ICT in university students within a competency-based training model. *Journal of New Approaches in Educational Research (NAER Journal)*, 8(1), 1-6. Retrieved from <https://www.learntechlib.org/p/207151/>.
- Hatane, S. E., Setiono, F. J., Setiawan, F. F., Semuel, H., & Mangoting, Y. (2020). Learning environment, students' attitude and intention to enhance current knowledge in the context of choosing accounting career. *Journal of Applied Research in Higher Education*. <https://doi.org/10.1108/JARHE-06-2019-0156>.
- Idris, I., Barusman, A. R. P., Evana, E., Widiyanti, A., & Mirfazli, E. (2020). Development of the Accounting Information System as Teaching Content to Improve Information Technology Competency in Graduates. *TEST, ENGINEERING & MANAGEMEN*, 82(1), 9897-9907.
- Itow, R. C. (2020). Fostering valuable learning experiences by transforming current teaching practices: practical pedagogical approaches from online practitioners. *Information and Learning Sciences*. <https://doi.org/10.1108/ILS-04-2020-0106>.
- Jackson, D., & Meek, S. (2021). Embedding work-integrated learning into accounting education: the state of play and pathways to future implementation. *Accounting Education*, 30(1), 63-85. <https://doi.org/10.1080/09639284.2020.1794917>.
- Heang, L. T., Ching, L. C., Mee, L. Y., & Huei, C. T. (2019). University education and employment challenges: An evaluation of fresh accounting graduates in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 9(9), 1061-1076. DOI: 10.6007/IJARBSS/v9-i9/6396.
- Kulikowski, K., Przytuła, S., & Sułkowski, Ł. (2022). E-learning? Never again! On the unintended consequences of COVID-19 forced e-learning on academic teacher motivational job characteristics. *Higher Education Quarterly*, 76(1), 174-189. <https://doi.org/10.1111/hequ.12314>.
- Lau, S. S., Wan, K., & Tsui, M. (2021). Evaluation of a blended career education course during the COVID-19 pandemic on students' career awareness. *Sustainability*, 13(6), 3471. <https://doi.org/10.3390/su13063471>.
- Lee, L., Kerler, W., & Ivancevich, D. (2018). Beyond Excel: Software tools and the accounting curriculum. *AIS Educator Journal*, 13(1), 44-61. <https://doi.org/10.3194/1935-8156-13.1.44>

- Lestyanawati, R. (2020). The strategies and problems faced by Indonesian teachers in conducting e-learning during COVID-19 outbreak. *CLLiENT (Culture, Literature, Linguistics, and English Teaching)*, 2(1), 71-82. DOI: <https://doi.org/10.32699/cllient.v2i1.1271>.
- Li, S., & Craig, S. (2020, November). Why do we adopt e-internships in eLearning curriculum development? A Model of Career-oriented Learning Experiences, Motivation, and Self-Regulated Learning. In *Innovate Learning Summit* (pp. 572-580). Association for the Advancement of Computing in Education (AACE). Retrieved October 16, 2022 from <https://www.learntechlib.org/primary/p/218852/>.
- Lim, Y. M., Cham, T. H., Lee, T. H., & Ramalingam, T. (2019). Employer-employee perceptual differences in job competency: A study of generic skills, knowledge required, and personal qualities for accounting-related entry-level job positions. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(4), 73-83. <https://doi.org/10.6007/IJARAFMS/v9-i4/6660>.
- Lugbom, R. K., Nwosu, F. C., & Ibitoroko, B. G. (2020). Perceived Impact of E-Learning Technology Utilization in Accounting Education. *Nigerian Journal of Business Education (NIGJBED)*, 7(1), 495-506. Retrieved from <http://www.nigjbed.com.ng>.
- Nurkhin, A., Kardoyo, K., Pramusinto, H., Setiyani, R., & Widhiastuti, R. (2020). Applying blended problem-based learning to accounting studies in higher education; optimizing the utilization of social media for learning. *International Journal of Emerging Technologies in Learning (iJET)*, 15(8), 22-39. Retrieved October 16, 2022 from <https://www.learntechlib.org/p/217078/>.
- Reshetnikova, O. (2020, October). E-learning as an efficient technology in accounting education. In *European Conference on e-Learning* (pp. 445-XIX). Academic Conferences International Limited. DOI: 10.34190/EEL.20.041.
- Rotondo, G. (2020). Closing the Technology Skills Gap in Accounting Education: Making Excel Certification a Student Responsibility. *Business Education Innovation Journal*, 12(1).
- San-Martín, S., Jiménez, N., Rodríguez-Torrico, P., & Piñero-Ibarra, I. (2020). The determinants of teachers' continuance commitment to e-learning in higher education. *Education and Information Technologies*, 25(4), 3205-3225. <https://doi.org/10.1007/s10639-020-10117-3>.
- Saraswati, A. A. S. D., Dwija, I. G. A. M. A., Suprasto, H. B., & Sari, M. M. R. (2020). Influence of competence and locus of control on readiness of accounting department students facing the world of work era industrial revolution 4.0. *International Research Journal of Management, IT and Social Sciences*, 7(4), 14-23. <https://doi.org/10.21744/irjmis.v7n4.936>.
- Sekaran, U., & Bougie, R. (2003). *Research Methods for Business, A Skill Building Approach*, John Willey & Sons. Inc. New York.
- Skhephe, M., Caga, N. P., & Boadzo, R. M. K. (2020). Accounting teachers' readiness for e-learning in the Fourth Industrial Revolution: a case of selected high schools in the Eastern Cape, South Africa. <https://hdl.handle.net/10520/ejc-persed-v38-n1-a5>.
- Stevens, M. (2020). Expertise, complexity, and self-regulated engagement: Lessons from teacher reflection in a blended learning environment. *Journal of Online Learning*

- Research, 6(3), 177-200. Retrieved October 16, 2022 from <https://www.learntechlib.org/primary/p/216912/>.
- Thottoli, M. M. (2020a). Impact of accounting software among SMEs accountants in Oman. *Financial Markets, Institutions and Risks*, 4(2), 25-33. doi: 10.21272/fmir.4(2).25-33.2020.
- Thottoli, M. M. (2020b). Knowledge and use of accounting software: evidence from Oman. *Journal of Industry-University Collaboration*, 3(1), pp. 2-14. <https://doi.org/10.1108/JIUC-04-2020-0005>.
- Thottoli, M. M. (2021). Impact of information communication technology competency among auditing professionals. *Учет. Анализ. Аудит*, 8(2), 38-47. Doi: 10.26794/2408-9303-2021-8-2-38-47.
- Zhang, Z. (2018). Construction of the Multimedia Teaching Platform of Cost Accounting Course Based on EXCEL VBA Program. *International Journal of Emerging Technologies in Learning*, 13(5).
- Zhao, Q. (2018, March). Study on Integrated Competency-based Accounting Education. In 2nd International Conference on Culture, Education and Economic Development of Modern Society (ICCESE 2018) (pp. 890-893). Atlantis Press. <https://doi.org/10.2991/iccese-18.2018.203>.