

Evaluation of practical accounting education in Jordan

Practical
accounting
education

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Abstract

Purpose – The objective of the paper is to explore and evaluate practical accounting education to find its weaknesses and suggest avenues to build strengths which will provide the market with effective accountants from the universities (the primary source of accountants).

Design/methodology/approach – The study uses semi-structured interviews to understand and extract the study problem and build the questionnaire; the final step is to analyse and interpret the questionnaire results based on structured interviews, dividing the research community into professors and market elements, business managers and university graduates.

Findings – The market has provided a negative evaluation of practical education. Reasons include a shortage of instructors with professional experience; curriculums that lack the topic of professional and ethical skills; and internships if provided, with unsatisfactory results. The study suggests accounting simulation labs as a reasonable substitution for the placement year (internship) if the labs are qualified and the internship results unsatisfactory.

Originality/value – This article is based on a multiregional research community, making results transferable to any country that faces a lack of professional accounting education. The applied evaluation method is capable of use by any other field in the business industry since accounting is part of this industry.

Keywords Accounting lecturer competence, Practical accounting education, Internship (placement year), Accounting simulation labs, Professional and ethical skills

Paper type Research paper

Received 18 April 2021

Revised 18 June 2021

29 July 2021

Accepted 3 September 2021

Introduction

The quality of any educational programme depends on its curriculum, along with other factors such as teacher competence and the educational environment (Kerimbayev *et al.*, 2020). The accounting education programmes in most countries show an emphasis on theoretical accounting topics and a deficiency in accounting application (Wyness and Dalton, 2018); in addition, topics related to improving the personality and mindset of students are rarely presented (Limeri *et al.*, 2020). Competition in accounting recruitment increases the importance of professional accounting education and forces the universities to be successful in the employment of their graduates. Therefore, it has become essential to enhance university outcomes by having an advanced professional accounting education (Duff *et al.*, 2020). The international accounting education standards board (IAESB) issued in 2014 the framework for international accounting education standards for professionals to address the need for competent accounting education that will serve the public interest by strengthening the worldwide accountancy profession through the development and enhancement of professional accounting education (IAESB, 2019). This has motivated the researcher to analyse practical accounting education for the bachelor's degree and discover avenues to improve it. The sample for this article was collected from Jordan. In Jordan, the number of accounting graduates exceeds 3,000 students a year and the population is 9 million



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Higher Education Evaluation and
Development
Vol. 16 No. 1, 2022
pp. 47-62
Emerald Publishing Limited
2514-5789
DOI 10.1108/HEED-04-2021-0034

(Alsharari, 2017). The variation and expansion of the sample range is the first unique feature of this article. There are several other unique features which include the following: This research relied more on the direct human response than on theoretical issues to determine and explain the gap in the education system using a survey with the research community. This survey, through open-end interviews, is the initial method used in the methodology to establish a reasonable understanding of the research problem and to construct the questionnaires. The results of the questionnaires were discussed using detailed structured interviews to gain a deeper understanding and to strengthen the generalisability of these results (Buganova *et al.*, 2021). In addition, the hierarchy of input, production process and customer satisfaction was used by the study, which divided the research community into three segments: the student (input), accounting lecturer (process) and business manager (customer). This flow helped the study to gain a comprehensive evaluation of the educational programme. Moreover, the applied evaluation method is capable of use by any other field in the business industry since accounting is part of this industry, and the study suggests equations that could be used to conduct a quantitative evaluation of any business industry fields. The findings indicate that despite the high academic competence of the accounting lecturers, they have a shortage of professional qualifications (experience). In addition, the disappointing results of the internship are vital reasons for a weak practical education that results in a low level of satisfaction for business managers. The lack of the employment skills topic in the curriculum also has negative effects. The second section provides a background on the definition and discussion of the elements of practical education in accounting. The third section describes the methodology of research, followed by the findings in Section 4. Section 5 provides discussion and implications. Finally, section 6 draws conclusions and limitations of the study.

Background

The *professional experience of the professors* is an important element in practical accounting education (Batak, 2018). Fischman (2007) earlier explained that PhD graduates do not have practical experience, but they do have textbook knowledge. The author proposed that accounting professors have the dual responsibility to prepare students for accounting practice and to pass the certification of public accountant (CPA) exam. Consequently, in 2014, the IAESB announced the first accounting education standard, which consists of entry requirements to professional accounting education programmes to put into effect educational admission requirements that are appropriate and guard the public interest (Kutluk and Dönmez, 2017). This action of the IAESB increases the weight of the professors' professional experience. The second valuable element in practical accounting education is *employment skills* since they are essential for any job, especially business jobs (Berti *et al.*, 2020). Some academics have illustrated the significance of these skills in their articles, for example, Pearson (2017) and Reyad *et al.* (2019) mentioned that the influence of professional and business skills necessitates growing beyond business experts and academic researchers because fraudulent behaviour keeps attention focused on ethics in businesses. Moreover, the accounting profession pays attention to ethical practices and has adopted a strict code of conduct, and many jurisdictions require the passage of an ethics exam to gain certification. Green (2021) and Ismail *et al.* (2020) realised the importance of professional competence for accounting graduates. They mentioned the challenges faced by professors and professional devices to ensure the capability of the accounting courses in supporting graduates with the necessary skills to be able to enter a professional business. Employers require a wide range of working skills (teamwork skills, leadership potential, verbal communication and interpersonal skills), yet it appears that graduates have not been adequately taught these skills in their accounting degree programmes. Osmani *et al.* (2020) pointed out that

professional accountants, as well as accounting instructors and researchers, admit that communication, leadership and innovation skills are important for an accountant's career. Moreover, professional accounting bodies like the American Institute of Certified Public Accountants (AICPA) and the Association of Chartered Certified Accountants (ACCA) recognise the professional skills as a fundamental personal competency. Audit and accounting firms appreciate the professional skills, and they consider them valuable since such skills increase an accountant's opportunity to reach supervisor and partner levels. Additionally, [Dong et al. \(2017\)](#) found that employers prefer accounting graduates who have professional skills, such as (1) analytical/problem-solving skills; (2) a level of business awareness or real-life experience; (3) ethical awareness and professional skills. Further, businesses expect oral communication skills, teamwork and written communication skills. All of these skills have to be combined with highly competent theoretical information in the accounting field. [Chaplin \(2017\)](#) concluded that the professional skills of the accountants are gained through practice, while everyday communication skills and socialising skills with clients, superiors and co-workers help accountants develop self-confidence and, consequently, become more skills competent. Meanwhile, students may not be intensely knowledgeable of the importance of professional skills; therefore, universities should afford suitable curriculums that provide their accounting students with the professional skills necessary to start their careers. Based on the above explanations of the effects of these skills, the IAESB issued the initial professional development education standards – professional values, ethics and attitudes standards to support accounting graduates with the ethical values needed in their careers. The standard classified these ethics as professional scepticism and professional judgement, moral principles and commitment to the public interest ([IAESB, 2019](#)). The third element mentioned in these standards is the *internship (placement year)*, which is the spirit of practical accounting education. The [IAESB \(2019\)](#) stated the purpose of the practical experience standard as providing practical experience and a professional environment to develop the competence of new accountants by an internship that will (1) increase awareness of the situation in which services are provided; (2) improve the intern's understanding of the organisation, how business works and professional work relationships; (3) relate accounting work to other businesses and activities; and (4) develop the appropriate professional values, ethics and attitudes in practical, real-life situations. Exceptional academics' opinions support the positive results of the field training. For example; [Eccles and Renaud \(2018\)](#) supported the argument that students on programmes with a supervised work experience module have higher employment rates (and lower unemployment rates) and higher self-ratings of their work-related facility. [Smith and Clegg \(2017\)](#) analysed the benefits of the placement year in the final period of the degree programme using discourse analytic methodology and found that the success of this placement year depended upon the students themselves, along with the method that the educational institution used to set it up and the coordination with the external firms and parties. Moreover, many students advanced personally by gaining new knowledge, application and skills or principles which link to work. On the other hand, there are some negative consequences related to the system of the firm where they spent their placement year. For instance, there may be no available trainer and job security, and there may be a firm system that is difficult to understand. [Allen \(2011, p. 11\)](#) indicated three reasons that educators should consider consolidating experiential learning in the accounting curriculum: (1) work experience makes students more marketable; these activities help students to gain needed experience that they can discuss in job interviews with potential employers; (2) hands-on learning can help reinforce and clarify the concepts introduced in the classroom; (3) many students find such activities to be fun enhancements to the traditional classroom experience and helpful in making informed career choices. On the other hand, gaps in field training were noted by [Chen et al. \(2011\)](#) and [Limeri et al. \(2020\)](#) who found some inopportune results of work experiences, such as, the inadequacy of the

harmonisation between theory and practice, emphasis on a small variety of technical skills, exploitation as economy labour and undertrained.

Chen (2014) and Anjum (2020) derived many characteristics of the placement year that are necessary to access quality learning environments and which have to be prepared and supported by supervisory staff. A placement year demands deliberation and support by the induction of students and supervisors. It also requires the creative improvement of appropriate assessment to ensure the maintenance of high standards and suitable responsibility for care. Furthermore, involving a host organisation from the beginning in the planning for the placement year will produce an active placement programme, and it is crucial to encourage the students to develop new ideas through the examination of the topic and the actual work in parallel with training. Some factors described in the mentioned international accounting education standards inform that accounting education should massively focus on practical elements. This means that the professional experience of the instructors, their technical and ethical skills and their professional training are literally the bricks of accounting education more than the textbooks; accounting is thus a job like, for example, engineering and nursing.

Accordingly, the study question is: *Is accounting education in Jordan competent enough to provide qualified accountants to the market?* The article aims to analyse and evaluate practical accounting education in Jordan and then find weaknesses and suggest avenues to support this education. This will provide the market with an effective accountant since the universities are the primary sources of accountants. Additionally, the value of this article is increased since the results will be valid for many countries facing the problem of a lack of professional accounting education, which is common in many countries, even advanced countries (Boulianne *et al.*, 2018). Moreover, the applied evaluation method can be used by any other field in the business industry since accounting is part of this industry.

Research method

Since one of the main targets of accounting education is to provide the market with effective accountants, market viewpoint elements are a suitable evaluation method for business managers and graduate accounting students. Additionally, accounting professors, regardless of the lack of professional experience, play a leading role in the education process. Accordingly, the research society is composed of (1) accounting professors; (2) business managers; (3) university accounting graduates who have one or two years of experience.

This survey, through open-end interviews, is the initial method used in the methodology to establish a reasonable understanding of the research problem and to construct the questionnaires. The results of the questionnaires were discussed using structured interviews to gain a deeper understanding and to strengthen the generalisability of these results.

In the first stage, this paper discusses the opinions of some interviewees gathered from a survey (open-end interviews). The interviewees in this stage included *thirty-two university graduates* in accounting with two to three years of practical experience. They were selected depending on their academic achievement and work environment. A student who has graduated with a bachelor's degree and works for a large company will make a more valuable contribution to the study than other students will (Cassell, 2015). *Nineteen business managers* were selected by referring to their training of accounting graduates. The researcher faced difficulties because, for example, many companies refused the request to meet their financial managers for reasons of information security, while some financial managers apologised for not participating because they did not supervise any training for graduate accountants or due to lack of time. *Finally, twenty-six accounting professors* were selected from universities in Jordan that mainly have an awareness of and interest in accounting education. The most

valuable meetings were with professors who have written articles in accounting education and attended related conferences. All of the above interviewees were actively involved in the accounting education process and, therefore, could provide a rich explanation of the education process.

Consequently, interviews were proposed to capture the crucial evidence related to the research purpose. The open-end interviews were held within a reasonably open context; hence, the questions asked were not necessarily prepared in advance except for the opening question. Numerous questions were automatically asked during the interview, providing elasticity to both the interviewer and the participant to investigate and explain additional details or to consider other relevant points, unlike with structured interviews in which all the questions are designed and arranged beforehand. All of the interviews were conducted face-to-face in the Arabic English languages, and Arabic language interviews were translated into English. They were recorded and transcribed and were then coded manually by the researcher. Moreover, the interview transcription and coding processes were reviewed by an independent party to confirm the inter-code reliability.

Based on the results of these open-end interviews, different sets of questionnaires were designed and distributed to three segments 264 university accounting graduates; 86 business managers; and 107 accounting professors and instructors. These questionnaires were aimed to collect quantitative data to enhance the semi-structured interview results to enable this article to generalise the results using only descriptive statistics of average, median and mode. However, there was no aim to measure the relationship between variables.

The questionnaire was prepared in English and Arabic languages by the researcher himself regarding the community language. This action was taken to ensure understanding of the content of the questions. Moreover, they were drafted on the Microsoft Excel programme to facilitate the answering process and analyse them using Statistical Package for the Social Sciences (SPSS) software.

To maintain the methodology used in the interviews to obtain more accurate and realistic information, the questionnaires were sent to the three research categories as follows:

University accounting graduates: Consultations were held with the heads of university accounting departments to obtain the names of newly graduated students, specifically those with high academic performance. These graduates were then contacted via email or phone to find out if they were given accounting positions and if they had the desire to participate. The researcher sent the questionnaires by email to those graduates who agreed to participate.

Accounting professors and lecturers: The biographies of the lecturers listed on the websites of universities and colleges were reviewed to see if they had any research contributions related to accounting education. Additionally, some were contacted to know the extent of their interest in the matter. Depending on the results of the survey and correspondence, the researcher sent the questionnaires to those who agreed to participate by email.

Business managers: The reasons for selection were inferred from the interviewees nominated during the initial meetings. Then a number of these managers were contacted, and questionnaires were sent to them via e-mail.

Google forms or other similar templates have not been used. The questionnaire was tested by sending the first set to selected participants in the sample, and then the coherence of the results was examined. Moreover, the questionnaire was discussed with two professors for testing by experts.

The number of answered and returned questionnaires are shown in [Table 1](#).

In the final stage, the researcher conducted many systematic interviews with a group of participants who gave an excellent awareness of the subject during the semi-structured interviews in the first stage. All of the interviews were conducted in person and online. They were recorded and then transcribed and were then coded manually by the researcher.

Moreover, the interview transcription and the coding process were reviewed by an independent party to confirm the inter-code reliability. (see Table 2 structured interviews' sample distribution regarding the segments).

The structure of these interviews consists of questions aimed at clarifying the results of questionnaires. Additionally, the interview possesses features that are capable of improving the analysis of the questionnaire result. First, the researcher will have a mental framework of study questions to develop an understanding to explain the meaning of people's experiences (Liao *et al.*, 2020). Second, the qualitative interview is shaped in a conversational mode, and the conversation itself will lead to a sort of social relationship, with the quality of this relationship unique to every participant. Third, every participant can add information to the research, and the value of the participant answers depends on his or her personality.

Findings

The article considered the *market elements satisfaction of the accounting education* to generate an overall understanding of the level of this education which can be the basis for discovering the essential elements of the assessment on which research pillars can be built to explore the general evaluation of accounting education.

Therefore, some questions have been asked related to the market elements as follows: The first question was for university graduates. *Do you find the accounting education programme eligible for the market?*

Most of the students' responses and also their reactions reflected dissatisfaction with the overall accounting education system. This question and the results indicated that no university graduate is fully satisfied with the eligibility of the accounting programme for the market. Despite the majority being neutral, the average is bad.

The most reiterated sentence from the students during the first interviews was "accounting curriculum focused on the theoretical side and neglected the technical side". Accordingly, the questionnaire has considered this factor by setting the question – *Do the syllabus neglects the practical side?* Most of the students answered "yes", while a few answered "no".

Analytically, the students are not satisfied and find that the accounting programme is not enough for the market for the reason of being short on the practical side.

Conversations were opened with business managers about the capabilities and qualifications of accounting graduates; however, there were no signs of satisfaction when they talked about the quality of accounting graduates. A question was distributed to the employers in the questionnaires to confirm the results of the dialogues: *How do you think the fresh accounting graduates are qualified for the market requirements?* The results show that no employer is fully satisfied with the quality of the accounting education outputs. The result did not reach "good", which means unsatisfied.

They were informed during the interviews of the results of the descriptive statistics, "there is a shortage in the technical side, and this is why graduates need more technical training and practice when they start a job in the market". *These results confirm the same realisation, which is that the lack of practical education leads to a shortage in the efficiency of university accounting*

Table 1.
The number of
questionnaires that
were answered and
returned

Segment	Number of questionnaires	Answered and returned
University accounting graduates	264	221
Accounting professors and lecturers	86	69
Business managers	107	77
Total	457	367

graduates. Boulianne *et al.* (2018) added that accounting education and the accountancy profession are intimately linked, and they constitute a single unit. Accounting education necessarily has a responsibility to develop persons to become professional accountants.

Several semi-structured interviews were conducted with some faculty members to justify the reasons for the applied educational shortage and faults. The questions concentrated on the reasons for the lack of a practical aspect in the teaching of accounting. The responses focused on the academic and professional qualifications of the professors but also referred to the topics presented by the curriculum which relate to work and training skills. To search out the results which are connected to the IAESB standards and the professors' qualifications, questions in the questionnaire were asked to start the investigation into the *professors' professional and educational experience*. The first question was distributed to the accounting instructors: *Does the university apply specific rules to recruit the instructors?* Their responses were 67% "yes", 20% not enough and the remaining "no". The other question was as follows: *How do you evaluate the education efficiency of the instructors* (see Table 3 descriptive statistics results).

Some accounting department heads added during the conversations, "we require high grads in each studying stage", "we require high academic qualification from whom need to get a scholarship to study abroad", "we are locking on the research performance of the professors". These opinions mean the universities are careful about the educational qualifications.

On the other hand, there is apparent negligence in the professional qualification requirements. These requirements are essential to what Fogarty *et al.* (2021) mentioned: accounting professors have the dual responsibility to prepare students for accounting

Table 2.
Structured interviews'
sample distribution
regarding the
segments

Segment	Total
University accounting graduates	19
Business managers	11
Accounting professors and lecturers	13

Table 3.
Descriptive statistics
results

	Mean	Median	Mode
<i>Accounting professors</i>			
How do you evaluate the education efficiency of the instructors?	4.24	4	4
How do you evaluate the professional efficiency of the instructors?	2.24	2	2
How do you evaluate the result of the internship?	2.09	2	2
How do you evaluate the collaboration of the participated firms in the internship with the university?	2.06	2	2
How do you evaluate the motivation of the student in the internship?	2.24	2	2
<i>Business managers</i>			
How do you think fresh accounting graduates are qualified for the market requirements?	2.92	3	3
How do you evaluate the desire of the firm to provide training to the accounting trainee?	2.6	3	3
How do you evaluate the motivation of the student in the internship?	2.74	3	3
<i>University graduates</i>			
How do you find the accounting education programme eligible for the market?	3.51	3	3
1–5 Likert scale was used to measure the results of the above-mentioned table, started from (1) as the lowest/ worse result to (5) as the highest/best result			

practice and to pass the CPA exam. Grumet (2001) mentioned that during the academic preparation, accounting focuses on teaching the theoretical side of the field; it is becoming increasingly out of touch with the real world of accounting professionals. The majority of answers were on the bad side of the question, “*how do you evaluate the professional efficiency of the professors*” (see Table 3 descriptive statistics results). Moreover, the department heads verbally mentioned that “there are no practical experience requirements when hiring”. *Since these results represent the whole sample, the lack of accounting instructors with professional and practical experience is a global problem.*

Employment skills were mentioned in the IAESB accounting education standards.

Moreover, accounting professors mentioned, “accounting student will communicate with the society and the general subjects are important to him, too, and there are no skills subjects provided by the accounting education programs”. A question was addressed to the market elements by the questionnaires: *How much do you agree that the integration of technical and ethical skills will improve professional accounting education?* The mean is 4.34 between highly agreed and agreed. During the second set of conversations, a student added, “When I started my work, I asked myself, why I do not have these skills”; the business managers said, “Certainly, these courses give students good background and solid base to solve problems that may face them in their job in future”; “this knowledge play vital role in fulfilling the completeness of skills”; “surely, any accountant has to own these skills”. Accordingly, the element of the market considers these skills a necessity for the accounting job. While the accounting professors commented, “yes it will be, I always say accounting is a job, and the accounting students should be taught these subjects”; “I try to apply these skills in the class by giving the student’s case studies”. Analytically, the entire elements of accounting teaching support the integration of these skills with the educational programme. Therefore, this factor is considered as a base to improve accounting education, and it is lacking.

The internship (placement year) was cited as the most crucial factor of practical education. Some universities adopt the internship in the accounting programme curriculum to feed their students with professional training by collaboration and joint efforts with professional practitioners and firms (To and Lung, 2020). During the first stage of interviews, the research society elements mentioned the importance of the placement year. On the other hand, they expressed an unsatisfying opinion about processes and results. *Unexpectedly, a significant number were not involved in internships.* Accordingly, this article analyses many aspects of internship performance. First, it obtains the average of the students who get a placement year and their evaluation of it. Using the questionnaire, just 61% of the graduates got an internship during the study period, and the mean result of the whole sample is bad satisfaction. The graduates explained their perspective during the interviews by saying, “No, it just for wasting time, there is no any real training”; “No, there is no any supervising by the university, and the company does not care about you”. *This means the universities failed to provide qualified practical training to the students.* Accordingly, this result led to an exploration of the professors’ views of the reasons. The questionnaire included a question, *how do you evaluate the result of the internship?*

The results in Table 3 (descriptive statistics results) confirm the students’ opinions since the majority answered on the bad side.

Referring to the interviews that were conducted before the questionnaires, factors were revealed during the meeting with the professors which described the wicked results of the internship, as they cited, “there is a huge student number that makes controlling them very difficult”. Additionally, Nasser *et al.* (2011) said of the difficulties of running the internship in Jordan that there are 21 universities and a significant number offer accounting programmes. The number of accounting graduates from these universities exceeds the level of 3,000 students a year. Also, the professors several times mentioned a “lack of collaboration from the firms’ part”; “firms do not have enough time to care about the students”; “firms still worried

about the student's mistakes"; "there is negligence by universities in the supervising process" and "a lack of responsibility among students". These factors were pointed to and justified in the professor's questionnaires as follows: *How do you evaluate the control of the internship by the university?*

The mean of the result was 2.36; this means the control is almost bad; therefore, the *weak university control* is the first factor, confirmed by the statistical result of the next question: *How much the significant number of accounting students disrupts the internship process?* The mean is 4.20, which means it has an almost terrible effect.

The next inquiry was as follows: *How do you evaluate the collaboration of the participated firms in the internship with the university?* Responses are shown in Table 3 (descriptive statistics results).

The number (2.06) is evident, which means the result is bad. Analytically, the other factor affecting the weak internship result is *the poor collaboration of the firms that participate*. The third question was as follows: *How do you evaluate the motivation of the student in the internship?* The professors answered this as shown in Table 3 (descriptive statistics results). When the mean is almost (neglected), this result means that most accounting students do not care about their training during the education period; it could also refer to a lack of awareness of the students about their future careers. Therefore, *the lack of student awareness and motivation during the internship* is considered a factor for the weak results.

To confirm the second and third factors, this article examined the perspective of the second part of the internship process, which is that of the firms that participated. Questions were distributed to business managers about the *lack of collaboration*: *How do you evaluate the desire of the firm to provide training to the accounting trainee?* Their answers can be seen in Table 3 (descriptive statistics results). They also mentioned during the final stage meetings, "but we can host one or two students every semester, it impossible to do training for a big number". The other question was: *Is your firm afraid of the accounting trainees' errors?* 91% of the business managers answered "yes" and verbally, "but frankly, we are worried about the trainee mistakes". These results lead to the conclusion that *although the firms have a normal desire to provide training, their fear of trainee mistakes and the incapability to host a significant student number cause the lack of collaboration with the universities*.

A question was asked related to the *lack of student awareness and motivation*: *How do you evaluate the motivation of the student in the internship?* Answers are shown in Table 3 (descriptive statistics results). Obviously, the opinions of the interviewees in the structured interviews regarding the placement year support the argument of a lack of student awareness and motivation.

Accordingly, the factors that constrain the internship benefits are *university control, the educators and the market-confirmed firms' collaboration and student awareness and motivation. These factors are common across the entire sample*.

In the first phase meetings with the professors, they suggested the accounting simulation labs as an alternative method to provide practical accounting training to the students. Bartram (2020) indicated that those simulation labs can resolve the problem of miscoordination between the external parties since they do professional training for what is taught on the theoretical side. Respectively, some questions were posed to the instructors in the questionnaires to explore the benefits of these labs. *Do you think the simulation labs can control the training process more than the internship?*

Their responses were 71% "yes", 29% "it is possible". Verbally, they added "it is the best method to provide a reasonable, practical accounting training to the students"; and "the universities can convert what they taught the student to practical issues and include the labs' mark in the students average". Analytically, the professors' opinions are that the simulation labs can *eliminate the factors of the lack of control and student awareness and motivation*. Moreover, according to Nurrahman and Bachtiar (2019), the need for *firm collaboration* will be

eliminated. On the other hand, verbally during the semi-structured interviews, the professors stated that there are factors that will reduce the appropriateness of replacing the internships with accounting simulation labs: “if the university using qualified equipment and tutors that will be great”; “nothing will be like the real world, but if the internship out of control the qualified labs will be better”.

Consequently, using the statistical approach, this article studied the released elements of *qualified equipment and tutors and the real work environment*. The following question was asked in the questionnaires: Can the university provide highly qualified simulation labs, equipment and experienced tutors? The mean was 4.4 and the majority is between “yes it can” and “it is possible”; just a few answers were “no”. This result suggests that there is a high possibility for the universities to provide highly qualified simulation labs. *Can the simulation labs provide an environment like the real work environment?* The answers converged on “possible” since the mean is 3.05 and the mode is 3 (possible). Supporting these statistical results by referring to the structured interviews answers, this factor related to the professional recruiting instructor and qualified equipment and the control factor, according to “nothing will be like the real world, but if the internship is out of control the qualified labs will be better. Additionally, the interviews with students who had an accounting lab subject obtained satisfaction against the subject result, “I got two accounting lab subjects, and they are helpful”. Accordingly, the accounting simulations labs will be a reasonable substitution for the placement year if the labs are qualified and internship results still ineffective.

Discussion and implication

This article addresses the state of education for accounting majors in Jordan. The study demonstrated the practical aspect of the education process. Some studies have pointed out the existing gap between accounting education and market needs, and three crucial factors of the practical side of the accounting education system have been mentioned. These factors are instructors’ practical experience, technical and ethical skills and internships. Additionally, during 2014, the IAESB issued the framework for international accounting education standards for professionals to support the public interest by strengthening the accountancy profession by the progress of professional accounting education. Moreover, these standards mentioned the abstracted practical education elements in an exceptional standard for each. Considering the objective of evaluating the practical side, these standards were used as a reference for the article.

On the other hand, the study found that the main elements in the teaching process of accounting are (1) accounting professors; (2) business managers and (3) accounting students. These groups formed the research community. This paper adopted a research method of three stages, semi-structured interviews, then the questionnaire and, finally, structured interviews, to collect and interpret the information. It also relies more on the direct human response than on the theoretical literature to determine and explain the gap in the education system using a survey with the research community.

The findings reveal that the practical accounting education of the whole sample does obtain the satisfaction of the market elements, which are the graduates and employers.

This dissatisfaction is due to the fact that the practical aspect is neglected. For instance, the participants commented that there is a distinct shortage in the professional instructor experience and attention to teaching the professional skills; moreover, there are negative results of the internship for reasons mentioned in the findings.

The practical implications of the study are related to guiding how accounting education as a whole can be improved by advancing the practical part. Moreover, the applied evaluation method is capable of use with any other field in the business industry since accounting is part of this industry.

Additionally, the results propose the introduction of accounting simulation labs as an alternative to the placement year in the study plans of the accounting education programmes. These labs could be an acceptable tool to improve practical education, as long as they are equipped with appropriate equipment and supervised by persons with professional experience in accounting.

Although this article focuses qualitatively, it suggests equations related to practical accounting education that could be used in quantitative research in any business education field, not just accounting.

The first equation related to the internship quality is

$$QINR = CONT + COLL + STUD + \varepsilon$$

where QINR is the quality of the internship, CONT is the university control, COLL is the educators and the market-confirmed firms' collaboration and STUD is student awareness and motivation.

The second equation related to the quality of practical accounting education is

$$PEDU = QINR + INST + SKIL + \varepsilon$$

where PEDU is the practical accounting education quality, QINR is the quality of the internship, INST is the instructors' practical qualifications and SKIL is the professional skills.

The third equation related to the replacement of the internship by the simulation labs is

$$SIMU = EQUIP + INST + QINR + \varepsilon$$

where SIMU is the suitability of applying the simulation labs, EQUIP is the quality of the labs' equipment, INST is the lab instructor competence and control and QINR is the quality of the internship.

Conclusion

The study reviewed university accounting education in Jordan. A gap has arisen although some authorities have issued instructions to develop both theoretical and practical aspects of accounting education, such as the issuance by the IAESB of the framework for international accounting education standards. Additionally, the universities have been trying to gain an advantage in the employment of their students. The findings reveal that the accounting education in the universities included in the considered sample is distant from the market requirements since there is still a delinquent stance regarding the practical side in the accounting education despite the universities having adopted an excellent quality theoretical accounting education.

The limitations of this study are that the period of observing the evidence took almost three years. In addition, conducting the interviews before and after the questionnaire faced many obstacles, such as rejection from some participants to do another conversation. The coordination between three research stages and three research society segments is also considered a difficulty. However, analysing interview results with the accounting education process elements combined with the results of descriptive statistics and the suggestion to insert the accounting simulation labs provided guidance on how accounting education as a whole can be improved; these solutions can be followed in many countries. Moreover, these results could be applied to the whole business industry.

This study proposes other topics that can be discussed, such as studying the accounting bodies and syndications of accountant roles and cooperation with universities in the development of accounting education. On the other hand, quantitative evaluation research on the practical education of accounting and other fields in business education can be conducted

using the suggested equations. The article opens another path for a study regarding the simulation labs, which is the possibility of finding collaboration between the universities and banks to establish a special branch for student training purposes since the banking industry is considered a high-risk business.

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Appendix

The survey, semi-structured interviews, questions

Accounting professors

What is your opinion of the academic qualifications of the accounting professors?

What is your opinion of the practical qualifications of the accounting professors?

Are the professional skills important for the students?

How do you evaluate the internship of the accounting students?

What are the problems of providing an effective internship?

Do you have any suggestion to improve the internship?

Business managers

How do you evaluate the capabilities and qualifications of accounting graduates?

How do you evaluate the internship program of the accounting students?

What are the problems of providing an effective internship?

Graduated students

Do you find the accounting education program eligible for the market?

Have you studied any topic related to professional skills?

How do you evaluate the internship?

Questionnaires

Accounting professors

How do you evaluate the education efficiency of the instructors?	Very bad	Bad	Good	Very good	Excellent
How do you evaluate the professional efficiency of the instructors?	Very bad	Bad	Good	Very good	Excellent
Does the university apply specific rules to recruit the instructors?		No	Not enough	Yes	
Does the university provide any professional skills topics?		No	Not enough	Yes	
How much do you agree that the integration of technical and ethical skills will improve professional accounting education?		Adverse	Don't agree	Agree	Highly agree
How do you evaluate the result of the internship?	Very bad	Bad	Good	Very good	Excellent
How much the significant number of accounting student disrupts the internship process	Never disrupt	Low disrupt	Disrupt	Highly disrupt	Terrible disrupt
How do you evaluate the control of the internship by the university?	Very bad	Bad	Good	Very good	Excellent
How do you evaluate the collaboration of the participated firms in the internship with the university?	Very bad	Bad	Good	Very good	Excellent
How do you evaluate the motivation of the student in the internship?	Very bad	Bad	Good	Very good	Excellent
Do you think the simulation labs can control the training process more than the internship?		No	Possible	Yes	
Can the university provide high qualified simulation labs, equipment and experienced tutors?		No	Possible	Yes	
Can the simulation labs provide an environment like the real work environment?		No	Possible	Yes	

Business manager

How do you think fresh accounting graduates are qualified for the market requirements?	Very bad	Bad	Good	Very good	Excellent
How much do you agree that the integration of technical and ethical skills will improve professional accounting education?		Adverse	Don't agree	Agree	Highly agree
How do you evaluate the desire of the firm to provide training to the accounting trainee?	Very bad	Bad	Good	Very good	Excellent
How do you evaluate the motivation of the student in the internship?	Very bad	Bad	Good	Very good	Excellent
Is your firm afraid of the accounting trainees' errors?		No	Little	Yes	

Graduated student

How do you find the accounting education program eligible for the market?	Very bad	Bad	Good	Very good	Excellent
Does the syllabus neglect the practical side?		No	Yes		
Does the university provide any professional skills topics?		No	Not enough	Yes	
How much do you agree that the integration of technical and ethical skills will improve professional accounting education?		Adverse	Don't agree	Agree	Highly agree
Did you enroll the internship?		No	Yes		
How do you evaluate the internship results	Very bad	Bad	Good	Very good	Excellent

Structured interviews

Accounting professors

The business managers provided an unsatisfied impression of the quality of the profession of the students. Please, could explain.

In the same way, students expressed that the is not perfect for the market. Please, could explain.

What are the standards for the accounting professor's selection?

The whole sample agreed that the professional skills topics are important, why they are neglected in the curriculum in common?

How you can explain that the accounting students number harms the internship results?

Could you please explain the lack of collaboration with the participated firms in the internship?

How can the simulation labs control the training process more than the internship?

How can the university provide high qualified simulation labs?

How can the simulation labs provide an environment like the real work environment?

Business manager

Why the technical and ethical skills are important for accounting graduates?

Why the firms have a poor desire to provide the internship?

Why the firms are afraid of the accounting trainees' errors?

How you can evaluate the motivation of the student, who enrolls the internship?

Graduated student

Were the accounting topics you studied providing sufficient accounting information?

Could you please tell me if the professors were providing practical examples?

Did you study any employments skills topic, do them help you in your career?

Why student's motivation during the internship is weak?

Did the firm and the university neglect your progress during the internship?

Did you enroll a simulation lab and what are the benefits you got?

Do you think that the simulation labs provide an environment like the real work environment?

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