An investigation into the perceptions of accounting students and accountants towards accounting education

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ABSTRACT

This study aimed to investigate the perceptions of accounting students and accountants towards the importance of accounting topics, skills and knowledge. The study also attempted to compare the accounting topics, skills and knowledge that accounting students and accountants believe are important for them.

The study used a descriptive analytical approach to define the study problem, highlight its significance, and establish its objectives. Data were collected via questionnaires from two groups: first group consists of (55) accounting students majoring in accounting at Azzytuna University and the second group consists of 38-Waha oil company accountants. All the Data were analyzed through SPSS version 24 to investigate if there are any differences between accounting students and accountants' perceptions as to what is important in accounting education.

The findings of the study revealed that accountants placed an emphasis on learning traditional accounting topics while accounting students placed an emphasis on learning contemporary accounting topics. Also, the findings revealed that both groups were not in agreement on the importance of accounting topics, skills and knowledge in accounting education and differences existed between their perceptions towards the importance of accounting topics, skills and knowledge in accounting education.

• **Keywords:** Accounting Topics, Accounting Skills, Accounting Knowledge, Accounting Students, Accountants.

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تحليل لآراء طلاب المحاسبة والمحاسبين حول تعليم المحاسبة

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■ **ملخص البحث**

هدفت هذه الدراسة إلى الكشف عن تصورات طلبة المحاسبة والمحاسبين لأهمية المواضيع، والمهارات، والمعارف المحاسبية. أيضاً سعت الدراسة إلى مقارنة المواضيع، والمهارات، والمعارف المحاسبية التي يعتقد طلبة المحاسبة والمحاسبون بأنها ذات أهمية بالنسبة لهم.

أستخدم المنهج الوصفي التحليلي لتحديد مشكلة الدراسة، وإبراز أهميتها، وأهدافها. جُمعت البيانات من خلال استبيانات وزعت على مجموعتين: المجموعة الأولى ضمت (55) طالبًا وطالبة يدرسون تخصص المحاسبة في جامعة الزيتونة، والمجموعة الثانية ضمت (38) محاسبًا يعملون في شركة الواحة للنفط. حُللت جميع البيانات باستخدام برنامج (SPSS) الإصدار 24، للتحقق من وجود فروقات بين تصورات طلبة المحاسبة والمحاسبين حول أهمية التعليم المحاسبي.

كشفت نتائج الدراسة أن المحاسبين ركزوا على تعلم مواضيع المحاسبة التقليدية، بينما ركز طلبة المحاسبة على تعلم مواضيع المحاسبة المعاصرة. كما كشفت النتائج عن عدم اتفاق المجموعتين على أهمية مواضيع المحاسبة ومهاراتها ومعارفها في التعليم المحاسبي، ووجود اختلافات في تصوراتهم تجاه هذه الأهمية.

● **الكلمات المفتاحية:** مواضيع المحاسبة، مهارات المحاسبة، المعرفة المحاسبية، طلاب المحاسبة، المحاسبين.

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1. Introduction

The main goal of any educational institution is to prepare their students for real life by equipping them with the cutting-edge information and necessary skills for their future professional career. Recently, many accountants and accounting educators have expressed their interest in the development of accounting curricula for students wishing to pursue a career in management accounting. Therefore, educational institutions should aim at meeting the expectations of the business world in order to survive since the traditional scorekeeping role of accountants is no longer sufficient in modern global business models. Based on this, academic educators should provide accounting students with what the business world demands from graduates for successful performance for their future careers. Since old-fashioned curriculum and traditional teaching methods are not sufficient to satisfy the demands of employers, therefore, the accounting students' needs must be met with the employers' expectations and changes to the existing curriculum must be made.

Moreover, employers are expecting graduates to have the required skills and knowledge to be competitive in the workplace over and above their professional knowledge. Therefore, in order to develop new skills alongside existing ones, academics and practitioners should concentrate on what should form part of a 'common body of knowledge' (CBK) for accounting education. Preparation of students at the tertiary education level for their future professional accounting career should involve the teaching of contemporary accounting topics and skills that are highly effective to their organisations for the present and the future.

However, the compatibility between accounting graduates' skills and employers' expectations is very important to ensure that the output of accounting education fulfills the needs of employers Alazawi, 2018; Maali and Al-Attar, (2020). The existence of a possible 'gap' in accounting between theory and practice may indicate that academic educators are not teaching the latest innovative and contemporary accounting topics or that they are teaching traditional curricula.

The first purpose of this paper was to investigate the perceptions of accounting students and accountants as to what is important in accounting education, and secondly, to identify the skills that both accounting students and accountants consider are important for recent graduates. Thirdly, an attempt will be made to identify the most important types of knowledge perceived by both accounting students and accountants.

The results of this study will hopefully provide information about the importance of accounting topics, skills, and knowledge to the existing accounting curriculum employed at the tertiary university level for making content decisions on future accounting education. Therefore, the objective of this study is twofold. First, to investigate the important accounting, topics, skills, and knowledge from the perspectives of accounting students and accountants. Second, to investigate whether there are any differences between accounting students and accountants towards their perceptions. Therefore, this study aims to answer the following research questions:

Q1. What are the most important accounting topics perceived by accounting students and accountants in accounting education?

Q2. What are the most important accounting skills perceived by accounting students and accountants in accounting education?

Q3. What are the most important accounting knowledge perceived by accounting students and accountants in accounting education?

2. Literature Review.

Accounting education:

This section reviews the related literature on accounting education with special reference to accounting topics, skills, and professional knowledge. Accounting curriculum has been a considerable topic of debate over the past three decades as what should be included in its 'Common Body of Knowledge' (CBK), and whether a gap exists between theory and practice.

Some recent research studies have indicated that the existing accounting

education system in Libya does not meet the job market requirements Belkheir et al, (2019) while other researchers including Abas and Khalil, (2022); Musbah, (2021) argued that Libyan academic institutions satisfy the Libyan employers' needs by providing the most wanted professional skills. Therefore, due to these conflicting views on the state of accounting education in Libya, the researcher decided that further research is needed in order to provide more insights to bridge this gap. For instance, a study by Belkheir et al. (2019) targeted to investigate the state of accounting education in the Libyan academic institutions found that the Libyan Higher Education Institutes did not satisfy the scientific, practical, and technological requirements in accounting education. Similarly, a study by Alarbi and Abufares (2006) aimed to explore whether accountants in Libya have non-technical skills such as knowledge skills, information technology skills, self-management skills, teamwork skills, and decision-making skills found that those accountants had only a basic knowledge of these skills on an intermediate level. Another recent study by Almagori (2008) to investigate the current state of accounting education systems in Libya and whether these educational programs met employers' needs. His findings revealed that there was a gap between the accounting education systems and what the employers needed. His findings suggested that accounting education systems could bridge the gap between accounting education and employers' needs.

Over the past two decades, contemporary accounting topics such as Activity-based costing (ABC) and Activity-based management (ABM) have gained a lot of interest from both academics and practitioners since its emergence in the late 1980's Bjornenak & Falconer, (2002). However, despite the strong advantages of these accounting topics, a survey study indicated that the take-up of ABC and ABM had been low in practice Askarany & Yazdifar, (2007). Until recently, there has been a growing awareness of ABC and ABM, but the overall rate of implementation of these innovations has been low (Cohen et al., 2005). Therefore, these innovations of Activity-based costing, balanced scorecard and economic value added (EVA), which have become common features in contemporary accounting textbooks.

Thus, the content of a CBK for accounting has been of a great concern as what to include in the accounting curriculum. Lander & Reinstein (1987) pinpointed that establishing a CBK and considering the perceptions of accountants is highly important to develop the existing accounting curriculum for accountants. Therefore, they conducted a study to find out practitioners› perceptions on a list of accounting topics. The findings of their study found Internal controls, operational budgeting and standard costing received the highest rankings. Therefore, the debate of what to include in accounting education has remained an issue till 1990s despite the significant similarities and differences that have been found among practitioners and academics› views as what topics were important to be included in accounting education. For example, a study by Robinson & Barrett (1988) to investigate the most important accounting topics among practitioners found job order costing, cost volume profit (CVP) relationships and full absorption costing as the most important topics perceived by practitioners.

Over this debate, Birnberg (2000) stated that traditional topics such as budgeting will always be an integral part of a management accounting education. He argued that while new topics such as ABC are included in accounting education, traditional topics will always maintain its prominence in accounting education. Despite the advanced developments made to the accounting curriculum, many criticisms came out claiming that management accounting curriculum has failed to remain relevant to practitioners due to the use of technology as the main cause of this failure to remain relevant Albrecht & Sack, (2000). As a matter of fact, over the past twenty years, accounting education has witnessed significant changes as to what the future of accounting education and practice should include. Some scholars, such as, Dyer (1999) argued that technology would have a strong impact on accounting since the view of accounting has shifted from data gathering to data interpretation. Others, including Maskall & Baggaley, (2000) argued that this shift from data gathering to data interpretation created a new concept called 'business partner' which is referring to the function of accountants. Brewer (2000) pointed out that the advancement in accounting has created a considerable body of

knowledge for traditional accounting topics combined with contemporary ones, and this resulted in challenges in developing the accounting curriculum. In spite of this advancement, Adler et al.'s (2000) study found only a minority of practitioners in New Zealand adopted advanced management accounting techniques. Boer (2000) indicated that academic educators tend to offer topics to tertiary level students that they find interesting rather than what practitioners really want in industry as important. For instance, in a study by Bright et al (1992) to investigate the adoption of costing techniques found that many practitioners were still implementing traditional accounting techniques. A study by Dugdale (1993) indicated techniques such as that spread sheeting and budgeting were the most important techniques among participants; newer techniques such as activity-based costing (ABC) and activity-based management (ABM) were not rated high by practitioners.

Another study by Ainikkal (1993) to examine the uptake of advanced management accounting techniques found that practitioners still relied heavily on traditional management accounting techniques. The results of his study found traditional management accounting techniques such as standard costing were still popular with manufacturers. They also found that advanced management accounting techniques were more likely to be adopted by larger firms. In a study survey study by Chenhall, R.H. & Langfield-Smith, K. (1998). to identify the extent to which Australian manufacturing firms have adopted certain traditional and recently developed management accounting practices. The results revealed that that, overall, the adoption of traditional management accounting practices was higher than recently developed techniques. Further to tat, newer techniques, such as activity-based costing, were more frequently used than found in prior surveys. Also, the benefits from using traditional management accounting techniques were higher than those of newer techniques and these results confirm that an expectation gap exists between accounting students and accountants. As a result, the rate of adopting certain accounting techniques over others still remains an issue that is worth investigating in the area of accounting education.

Literature review on accounting skills and professional knowledge in education is abundant since they are also important for the development of the business world which can be obtained through, among others, university educational programs. Accounting graduates are, therefore, required to acquire some knowledge such as financial statement analysis, financial accounting, financial reporting standards, including the basic principles and concepts of accounting, Bakar & Bakar (2020) to increase skills prior to their future professional career. In an earlier by study conducted by Bui and Porter (2010) found that continuous learning is the most important skill needed among most graduate students.

Some research studies, however, indicated the importance of mastering accounting skills and professional accounting knowledge over others by accounting graduates and employers. For instance, a study by Aryanti and Adhariani (2020) to examine the perceptions of accounting students and expectations of practitioners towards the skills and knowledge needed by accounting graduates found that students found that honesty, continuous learning, and work ethics as the most important skills, while practitioners indicated the importance of work ethics, teamwork, and time management. As for the types of knowledge perceived by accounting as most important were financial accounting, financial reporting, and financial statement analysis, whereas practitioners perceived the importance of the analysis of financial statements, and Microsoft Office knowledge program. A recent study by Zuregigat (2017) who used a questionnaire to explore the most important skills needed for accounting graduates as expected by employers in Kingdom of Saudi Arabia (KSA), which must be mastered by accounting graduates ranked critical thinking and reasoning, problem solving and decision analysis, oral presentation, time management, computer etc., as the most important skills which must be mastered.

Another study by Musbah (2021) which was carried out on accounting students to investigate the knowledge and skills which should be taught to accounting students by Libyan universities revealed that the skills which should be taught at the Libyan universities were technical accounting skills,

general skills, and information technology skills. Also, in a more recent study by Alamari et al (2021) to identify the important knowledge and skills to be taught to the accounting students at Libyan universities from the perspectives of accounting graduates and academic educators results found that the most important skills to be taught were financial accounting, internal auditing, writing accounting reports, teamwork, ethics, and decision making.

Thus, the topic of accounting education is worth investigating as literature on the area of accounting skills and knowledge revealed different views among academics and practitioners towards the adoption of skills and knowledge as what is important in accounting education. For instance, Howcroft (2017) conducted a study on accounting educators to investigate the importance of 21 vocational skills for graduates starting their career as accountants. The findings revealed that the most important skills for them were communication skills, problem-solving, teamwork skills, and knowing information sources. The other less important skills as perceived by them were presentation skills and lifelong learning. Another study by Arquero et al (2001) to investigate the importance of a list of 21 skills on practitioners found that accounting practitioners and educators rated the importance of these 21 skills completely differently. Moreover, Sithole (2015) conducted a study to explore the accounting knowledge and skills adopted by employees showed the most important skills are computing technique, written communication, reporting skills, measurement skills, professionalism, and functional competencies. In addition to that, Wells et al (2009) did a study to identify the skills which are considered by employers in public practice as the most important for successful accountants found that personal, intellectual and interpersonal skills were needed for successful accountants in the workplace. Research on what employers can expect from accounting graduates suggests that they do not seem to have non-technical skills but rather have more technical skills (Kavanagh & Drennan, 2008).

Apart from accounting topics, accounting skills have also gained a special attention among many researchers in accounting education. For example, a study by Albrecht & Sack (2000) to compare academics' and practitioners' responses

for a list of skills found that their responses were substantially in agreement. Based on these results, it would appear that manufacturers could not abandon traditional management accounting techniques and that the rate of adoption of advanced or traditional accounting skills seems to have created a gap between the perceptions of practitioners and academics as what is important in accounting education. Therefore, to overcome this gap between academics and practitioners, academic educators will need to further associate accounting curriculum with workplace realities (Myers, 2005). However, differences were also found in the type of accounting knowledge among practitioners. For instance, a research study by Thottoli, (2020) found that using Microsoft is necessary in all accounting fields, even in small and medium enterprises. The findings suggested that using accounting software like Microsoft Excel is highly considered important due to its benefits in accuracy, efficiency, and ease of reporting

A research study by Uyar and Gungormus, (2011) to investigate the professional knowledge and the skills/attributes that are considered important by external auditors for a graduate who intends to be an auditor showed that the most required knowledge for accounting graduates, according to employers, are Microsoft Office program, accounting financial standards, financial statement analysis, and financial accounting. Therefore, it could be argued that there has to be a compatibility to balance between the theoretical and practical components in the accounting educational curriculum and that different backgrounds will always produce different views, such as bridging the gap between employers and students about the skills that accounting graduates must possess. This paper therefore was dedicated to identify if differences exist between the perceptions of accounting students and accountants as to what is important in accounting education. It was also dedicated to focus on what accounting students and accountants believe are important skills and knowledge for graduates to possess.

3. Methodology

The study used a descriptive analytical approach to define the study problem, highlight its significance, and establish its objectives.

3.1. Collection of Data.

For the purpose of the study to investigate and identify the perceptions of accounting students and accountants regarding the importance of accounting topics, skills, and knowledge in accounting education, questionnaires were deemed the most appropriate data collection tool for this purpose.

Therefore, an attempt was made, based on the most research studies reviewed, to design a questionnaire as a suitable data collection tool that can be used in this study to gather the required data. The questionnaire consisted of three parts. The first part of the questionnaire with 22 items was designed to answer the first research question about accounting topics. The second part of the questionnaire with 13 items was designed to answer the second research question about accounting skills. The final part of the questionnaire with 22 items was designed to answer the third research question about accounting knowledge.

The questionnaire was divided into three tables to compare the accounting topics, skills and knowledge that accounting students and accountants believe are important for them.

3.2. Reliability and Validity of the Questionnaires.

Prior to the main data collection, a pre-test was carried out to ensure the reliability of the questionnaire instrument. Ten accountants and 9 accounting students were engaged in the pre-testing process. Each participant of both groups was asked to provide feedback on the questionnaire instrument in order to identify any ambiguous wording or expression. To ensure validity and reliability of the questions, the instrument was pre-tested by using a small group of accountants at Waha oil company and few accounting students at the faculty of accounting. As the result of this pre-testing, a few questions were added and modified prior to the day of distribution. Results of the pilot tests led to several changes to the survey's layout, instructions, and questions to improve clarity and to improve the flow of the questions. Reliability Analysis test conducted as follows:

Table (1): Reliability Analysis.

Questions	No of items	Cronbach's alpha
Q1. The importance of accounting topics.	22	0.8608
Q2. The importance of accounting skills.	13	0.8405
Q3. The importance of accounting knowledge.	22	0.8304
Total	**57**	**0.8439**

Table (1) shows the reliability of the accounting student questionnaire and academic educators' questionnaire was calculated using Cronbach alpha formula, and it was found out to be 0.8608, 0.8305 and 0.8304 respectively with an overall value of 0.8439. This indicates that the degree of internal consistency of the questionnaires was adequately high, and the instruments should be considered as a reliable tool.

Table (2): Pearson Correlation for Internal Validity

Questions	No of items	P-Value	Pearson correlation
Q1. The importance of accounting topics.	22	0.000	0.8918
Q2. The importance of accounting skills.	13	0.000	0.7808
Q3. The importance of accounting knowledge.	22	0.000	0.7702
Total	**57**	**-**	**0.8143**

Table (2) shows a high correlation between every individual dimension with whole dimensions used in the questionnaire. Thus, it is clear that all dimensions show a highly strong correlation (1% significant level). Prior to this, initial pearson correlation tests confirmed that every item within a dimension was also highly correlated with that dimension (1% significance level). This validates the items' ability to accurately represent the three dimensions.

3.3. Sampling & Participants

The sampling frame consisted of two groups. The first group took part in this study were 55 accounting students majoring in accounting at the faculty of economics and political science of Azzytuna University who have already completed all the required courses in order to obtain their B.A degree. The second group who participated in this study were 38-Waha oil company accountants who work at the accounting section of the finance department. The questionnaires were sent to both groups of participants to complete and the data were collected. Respondents were assured that their individual responses would be kept confidential.

The first questionnaire, as shown in table (3), required both groups of participants to rate their perceived importance of accounting topics in accounting education by indicating how important each specific type of accounting topic in education on a 5-point Likert scale (1 = not important to 5 = extremely important). Similarly, in the second questionnaire as shown in table (4) both groups of participants were asked to rate their perceived importance of accounting skills in accounting education on a 5-point Likert scale (1= not important to 5= extremely important). Respondents were asked to indicate how important each specific type of accounting skill in accounting education .In the third questionnaire, as shown in table (5), both groups of participants were asked to rate their perceptions about the importance of accounting knowledge in accounting education on a 5-point Likert scale (1= not important 5= extremely important). Therefore, only the highest and lowest values of means with standard deviations would be considered in the findings and discussion of this study. The data were analysed using statistical analysis in order to determine the mean values and standard deviations of the findings in this study.

The questionnaires were developed after reviewing a number of existing surveys pertaining to accounting topics, skill, and knowledge in accounting education. The researcher designed some of the questionnaire items and developed some items from the literature review.

3.4. Data Analysis

Calculations of means, standard deviations, ranks and levels of importance were obtained to determine the perceptions of the respondents according to each item on the questionnaire. Therefore, the results of the descriptive analysis of the study will be presented as in the following table. More precisely, if the computational average mean falls between (**1 - 1.79)** then it is considered to be within the low level of importance. Also, if the average mean ranges between (**4.20-5.00**) then it is considered to be at a very high level of importance.

Tables (3): The weighted averages of means, standard deviations, ranks and levels according to the five-point Likert scale.

Level of importance	Not important	Of little importance	Moderately important	Important	Extremely important
Points	1	2	3	4	5
Weighted average on-five-point Likert scale	1 - 1.79	1.80 - 2.59	2.60 - 3.39	3.40 - 4.19	4.20 - 5
Rank	Very low	Low	Medium	High	Very high

4. Results and Discussion

4.1. Demographic information of accountants.

Tables (4): Demographic information of accountants.

Variable	Information	Number	Percentage
Age	Under 25	4	11%
	25–34	12	31%
	35–44	10	26%
	45–54	7	18%
	55 and above	5	14%

Variable	Information	Number	Percentage
Academic qualification	Diploma	7	19%
	Bachelor›s	19	50%
	Master›s	12	32%
	Doctorate (PhD)	0	0%
Field of study	Accounting	18	48%
	Finance	8	21%
	Business	5	13%
	Administration	7	18%
Years of professional experience	Less than 1 year	2	6%
	1–3 years	4	11%
	4–6 years	8	21%
	7–10 years	11	29%
	More than 10 years	13	34%

Table (4) shows that the findings obtained regarding the demographic information of the accountants resulted in a total of 38 useable responses. The majority of participants fall within the age group of 25–34 (31%) and 35–44 (26%), indicating that most participants are young to mid-career professionals. However, very few 11% are under 25, suggesting that recent graduates or entry-level accountants form a small portion of the sample. Further to that, accountants who are aged 55 and above represent 14% of the participants, indicating some senior professional accountants are also included. Half of the participants (50%) have a Bachelor's degree, which is expected as minimum requirement for entering this accounting profession. A high percentage (32%)

hold Master's degrees, showing a relatively well-educated group and no single respondent holds a PhD. Moreover, almost half of the participants (48%) studied Accounting, which is in accordance with their current profession. Others studied Finance (21%), Business (13%), or Administration (18%), showing that this accounting profession also takes on graduates from other related fields. Furthermore, the majority of respondents have more than 10 years (34%) and 7–10 years (29%) of experience, indicating that 63% of participants are senior or experienced accountants. However, a small percentage 6% have less than 1 year of experience. Overall, the accountant›s profile shows that the accountants surveyed are mostly educated who have an enough background in accounting or related fields with a significant professional experience. This data makes the sample suitable for providing the required information on the importance of accounting topics, skills, and knowledge in education.

4.2. Demographic Information of Accounting Students

Tables (5): Demographic information of Accounting Students.

Variable	Information	Number	Percentage
Gender	Male	34	62%
	Female	21	38%
Age	from 20	6	11%
	20 - 24	31	56%
	25 - above	18	33%
field	Accounting	23	42%
	Finance	7	13%
	Management	10	18%
	Business Administration	15	27%

Variable	Information	Number	Percentage
Career interest area	Accounting	17	31%
	Auditing	12	22%
	Financial Accounting	11	20%
	Management Accounting	8	14%
	Taxation	7	13%

Table (5) shows that the findings obtained regarding the demographic information of the accounting students resulted in a total of 55 useable responses. The majority of the students are male, making up 62% of the population, while female students account for 38%. The majority of accounting students (56%) fall within the age group of 20–24 indicating the traditional age of undergraduate students. Students aged 25 and above make up 33%, while those under 20 represent 11%. Nearly half of the respondents (42%) are majoring in accounting, which is central to the focus of the study. Another percentage of respondents 31% are studying Finance, and 18% are studying Management, and 27% are in Business Administration, indicating that the accounting students come from closely related disciplines who offer different but relevant views. The most common career interest for the participants is Accounting (31%), followed by Auditing (22%), and Financial Accounting (20%.(Management Accounting (15%) and Taxation (13%) as perceived among participants. Overall, this demographic information about accounting students provides a suitable data for analysing students' views towards the importance of accounting topics, skills, and knowledge in accounting education.

Firstly: The importance of accounting topics.

Table (6): The importance of accounting topics.

No	Accounting topics:	Responses	Mean	St. Deviation	Level	Rank
1	Activity Based Costing (ABC)	Students	**4.33**	1.278	Very High	2
		Accountants	**2.89**	1.278	Medium	20
2	Activity Based Management (ABM)	Students	**4.38**	1.172	Very High	1
		Accountants	**3.00**	1.453	Medium	22
3	Standard Costing	Students	**2.88**	1.212	Medium	22
		Accountants	**3.76**	1.212	High	5
4	Cost-volume Profit Relationship	Students	**3.01**	1.236	Medium	19
		Accountants	**3.29**	1.236	Medium	14
5	Performance evaluation	Students	**3.48**	1.370	High	10
		Accountants	**2.99**	1.370	Medium	17
6	Operational budgeting	Students	**3.17**	1.114	Medium	17
		Accountants	**4.39**	1.114	Very High	1
7	Capital budgeting	Students	**3.23**	1.277	Medium	16
		Accountants	**3.55**	1.277	High	8
8	Cash flow Management	Students	**3.31**	1.268	Medium	14
		Accountants	**3.93**	1.268	High	3
9	Product costing	Students	**2.93**	1.248	Medium	21
		Accountants	**4.31**	1.248	Very High	2
10	Absorption costing	Students	**3.29**	1.269	Medium	15
		Accountants	**3.41**	1.269	High	12
11	Variance Analysis	Students	**3.51**	1.228	High	9
		Accountants	**3.09**	1.228	Medium	15

No	Accounting topics:	Responses	Mean	St. Deviation	Level	Rank
12	Process costing	Students	**3.39**	1.221	High	12
		Accountants	**2.97**	1.221	Medium	18
13	Job Costing	Students	**3.42**	1.227	High	11
		Accountants	**3.53**	1.221	High	9
14	Accounting ratio analysis	Students	**2.99**	1.301	Medium	20
		Accountants	**2.79**	1.301	Medium	22
15	Material & inventory cost control	Students	**3.09**	1.261	Medium	18
		Accountants	**3.33**	1.261	Medium	13
16	Financial statements	Students	**3.78**	1.209	High	6
		Accountants	**3.89**	1.209	High	4
17	Accounting business	Students	**3.55**	1.174	High	8
		Accountants	**2.92**	1.174	Medium	19
18	Management accounting	Students	**3.33**	1.266	Medium	13
		Accountants	**3.69**	1.266	High	6
19	Customer profitability analysis	Students	**4.00**	1.168	High	5
		Accountants	**3.50**	1.168	High	10
20	Strategic management accounting	Students	**4.05**	1.263	High	4
		Accountants	**2.87**	1.263	Medium	21
21	Costs of quality	Students	**3.66**	1.123	High	7
		Accountants	**3.47**	1.123	High	11
22	Computer system, ERP, SAP	Students	**4.15**	1.161	High	3
		Accountants	**3.59**	1.161	High	7
	Total	**Students**	**3.50**	**1.194**	**High**	
	Accountants	**3.42**	**1.210**	**High**		

To answer the first research question: What are the most important accounting topics perceived by accounting students and accountants in accounting education**?** Therefore, only highest average means and standard deviations of both students' and accountants' responses would be considered to represent the most important accounting topics.

Accounting Students' perceptions:

It is clear from table (6) that the overall mean of the responses was **(3.50)** with a standard deviation of (1.194) which ranged between (4.19 - 3.40>) with a high level of importance. It is obvious from table (6) that the average sample responses of the students towards the importance of accounting topics in education varied conspicuously among students since the highest mean was (4.38) with a standard deviation of (1.172) which ranked the accounting topic statement number two " Activity Based Management (ABM)" as the most important accounting topic in accounting education. Then came statement number one "Activity Based Costing" (ABC) in the second place with an average mean of (4.33) and a standard deviation of (1.278) as the second important accounting topic. However, in the last place, the results revealed statement number three "Standard Costing" occupied the last rank as the least important accounting topic with an average mean of (2.88) with a standard deviation of (1.212) with a medium level of importance. The results showed accounting students ranked "Activity Based Management" (ABM) Activity Based Costing (ABC)", "Strategic management accounting", "computer system, ERP, SAP", and "customer profitability analysis" as the top five most important accounting topics in accounting education.

Accountants' perceptions:

It is clear from table (5) that the overall mean of the accountants' responses was (**3.42**) with a standard deviation of (1.210) which ranged between (3.40-4.19>) with a high level of importance. It is obvious from table (5) that the average sample responses of the accountants towards the importance of accounting topics in education varied considerably among them since the

highest mean was (4.39) with a standard deviation of (1.114) which ranked the accounting topic statement number six " Operational budgeting" as the most important accounting topic in accounting education. Then came statement number nine "Product costing" in the second place with an average mean of (4.31) and a standard deviation of (1.248) as the second most important accounting topic. However, in the last place, the results revealed statement number fourteen "Accounting ratio analysis" occupied the last rank as the least important accounting topic with an average mean of (2.79) and a standard deviation of (1.301) with a medium level of importance. The results showed that accountants ranked "operational budgeting", "Product costing", cash flow management ", "standard costing " and " financial statements" as the top five most important accounting topics for them to be included in accounting education

Therefore, based on the findings of this study, accounting students ranked the importance of some contemporary advanced accounting topics for accounting courses as it is possible that they did not rank "cash-flow management and capital budgeting topics" as important maybe because these topics form part of financial management courses in some institutions. In contrast, accountants selected some traditional accounting as the most important accounting topics in accounting education. However, unlike accountants, accounting students chose (ABM) and (ABC) as the most important topics in management accounting because they are very attractive from a conceptual point of view, and they have been included in all management accounting textbooks and most business school curriculum. Therefore, the findings of this study were consistent with the findings of Lander & Reinstein (1987) study who asked practitioners to give a ranking on management accounting objectives and specific knowledge items related to those objectives. Internal controls, operational budgeting and standard costing were found to receive the highest rankings as the most important topics ranked by practitioners.

The finding of this study was consistent with the finding of Dugdale (1993) which indicated that spread sheeting and budgeting were the most

important techniques; newer techniques such as activity-based costing (ABC) and activity-based management (ABM) were not rated high by practitioners. Moreover, ABC and ABM have not been adopted by accountants on a wide scale which supported the study of (Adler et al., 2000; Chenhall & Langfield-Smith, 1998) and these results confirm that an expectation gap exists between accounting students and accountants.

Secondly: The importance of accounting skills.

Table (7): The importance of accounting skills.

No	Accounting Skills:	Responses	Mean	St. Deviation	level	Rank
1	Interpersonal communication Skills	Students	**2.71**	1.301	Medium	13
	Accountants		**3.61**	1.175	High	7
2	Time Management Skills	Students	**2.75**	1.288	Medium	12
	Aaccountants		**4.31**	1.088	Very High	2
3	Teamwork Skills	Students	**2.88**	1.356	Medium	11
	Accountants		**4.01**	1.137	High	3
4	Analytical thinking Skills	Students	**3.86**	1.118	High	4
	Accountants		**2.95**	1.184	Medium	12
5	Problem Solving Skills	Students	**3.00**	1.353	Medium	9
	Accountants		**4.45**	1.076	Very High	1
6	Comprehension Skills	Students	**3.78**	1.272	High	5
	Accountants		**3.11**	1.226	Medium	11
7	Work ethics	Students	**3.58**	1.171	High	6
	Accountants		**3.63**	1.101	High	6
8	Technical skills	Students	**3.37**	1.233	Medium	7
	Accountants		**3.45**	1.267	High	8

No	Accounting Skills:	Responses	Mean	St. Deviation	level	Rank
9	Critical Thinking Skills	Students	**3.01**	1.034	Medium	8
	Accountants	**2.41**	1.331	Low	13	
10	Report Writing Skills	Students	**4.10**	1.114	High	2
	Accountants	**3.37**	1.239	Medium	9	
11	Oral presentation Skills	Students	**3.99**	1.100	High	3
	Accountants	**3.16**	1.220	Medium	10	
12	Decision making skills	Students	**2.97**	1.315	Medium	10
	Accountants	**3.88**	1.118	High	4	
13	Continuous learning & training	Students	**4.55**	1.014	Very High	1
	Accountants	**3.66**	1.122	High	5	
Total		**Students**	**3.43**	**1.160**	**High**	
	Accountants	**3.54**	**1.136**	**High**		

Accounting Students' perceptions:

It is clear from table (7) that the overall mean of the responses was **(3.43)** with a standard deviation of (1.160) which ranged between (3.40-4.19>) with a high level of importance. It is obvious from table (7) that the average sample responses of the accounting students towards the importance of accounting skills in education varied considerably among them since the highest mean was (4.55) with a standard deviation of (1.014) which ranked the accounting skill statement number thirteen» Continuous learning & training» as the most important accounting skill in accounting education. Then came statement number ten « Report Writing Skills « in the second place with an average mean of (4.10) with a standard deviation of (1.114) as the second most important accounting skill. However, in the last place, the results revealed statement number one «interpersonal communication Skills», which occupied the last

rank as the least important accounting skill with an average mean of (2.71) and a standard deviation of (1.301) with a medium level of importance.

Accountants' perceptions

It is clear from table (7) that the overall mean of the responses was **(3.54)** with a standard deviation of (1.136) which ranged between (3.40-4.19>) with a high level of importance. It is obvious from table (7) that the average sample responses of the accountants towards the importance of accounting skills in education varied considerably among them since the highest mean was (4.45) with a standard deviation of (1.076) which ranked the accounting skill statement number five» Problem Solving Skills « as the most important accounting skill in accounting education which must be mastered. Then came statement number two « time Management Skills» in the second place with an average mean of (4.31) with a standard deviation of (1.088) as the second most important accounting skill. However, in the last place, the results revealed statement number nine « Critical Thinking Skills», which occupied the last rank as the least important accounting skill with an average mean of (2.41) and a standard deviation of (1.331) with a medium level of importance. However, according to the perceptions of the accounting students, the findings of this study revealed that they were in favor Continuous learning & training» and « Report Writing Skills as well as analytical thinking Skills and Oral Presentation Skills. From this list of the most important skills students selected, it can be deduced that accounting students were more aware of the importance to pursue their studies and as they need to be effective report writers, able to think critically, and able to give oral presentations.

Therefore, the first highest ranking of skill, according to the accounting students› perception is the willingness to keep learning in order to constantly update information. Therefore, the findings of this study agree with the research finding by Bui and Porter (2010) that Continuous learning is the most important skill needed by graduate students and the finding of Kavanagh and Drennan (2008). In contrast, the skills that had the highest ranking according to the perceptions of accountants were «Problem Solving Skills «

and « time Management Skills “, which must be mastered in the professional world. Therefore, this finding is in line with the findings of the study finding of Zuregigat (2017) who explored the most important skills that must be mastered by accounting graduates from the perspective of employers who ranked critical thinking and reasoning, problem solving and decision analysis, oral presentation, time management, computer etc., as the most important skills which must be mastered.

Thirdly: The importance of accounting knowledge.

Table (8): The importance of accounting knowledge.

No	Accounting Knowledge:	Responses	Mean	St. Deviation	Level	Rank
1	knowledge of Microsoft Office Program.	Students	**2.71**	1.257	Medium	22
		Accountants	**4.63**	1.113	Very High	1
2	Accounting and Financial Reporting Standards	Students	**3.99**	1.268	High	6
		Aaccountants	**3.51**	1.225	High	9
3	knowledge of Auditing principles	Students	**2.89**	1.227	Medium	17
		Accountants	**3.77**	1.125	High	5
4	Financial Statement Analysis	Students	**2.89**	1.233	Medium	17
		Accountants	**3.47**	1.244	High	10
5	knowledge of Financial Accounting	Students	**4.09**	1.265	High	5
		Accountants	**3.37**	1.210	Medium	15
6	Capital Market Board Regulations	Students	**3.49**	1.298	High	10
		Accountants	**3.00**	1.252	Medium	19
7	knowledge of Cost Accounting	Students	**2.73**	1.312	Medium	21
		Accountants	**3.59**	1.179	High	8

No	Accounting Knowledge:	Responses	Mean	St. Deviation	Level	Rank
8	knowledge of Managerial Accounting	Students	**2.75**	1.350	Medium	20
		Accountants	**3.88**	1.068	High	4
9	knowledge of Ethics of Accounting Profession	Students	**3.07**	1.298	Medium	12
		Accountants	**3.36**	1.131	Medium	16
10	knowledge of Corporate Accounting	Students	**3.41**	1.202	High	11
		Accountants	**3.00**	1.252	Medium	19
11	knowledge of Tax Regulations	Students	**2.97**	1.239	Medium	14
		Accountants	**3.43**	1.308	High	11
12	knowledge of Finance	Students	**4.63**	1.102	Very High	1
		Accountants	**3.41**	1.285	High	13
13	knowledge of Business Law	Students	**2.87**	1.202	Medium	19
		Accountants	**3.39**	1.175	High	14
14	knowledge of Accounting Information Systems	Students	**3.01**	1.305	Medium	13
		Accountants	**4.01**	1.088	High	3
15	knowledge of Business Mathematics	Students	**2.93**	1.230	Medium	15
		Accountants	**2.89**	1.331	Medium	22
16	knowledge of Statistics and Quantitative Methods	Students	**4.43**	1.086	Very High	2
		Accountants	**3.00**	1.273	Medium	19
17	Computerized Accounting knowledge	Students	**4.41**	1.183	Very High	3
		Accountants	**3.08**	1.171	Medium	18

No	Accounting Knowledge:	Responses	Mean	St. Deviation	Level	Rank
18	knowledge of Construction Accounting	Students	**2.91**	1.200	Medium	16
		Accountants	**3.11**	1.226	Medium	17
19	knowledge of Bank Accounting	Students	**4.13**	1.209	High	4
		Accountants	**3.42**	1.222	High	12
20	knowledge of Insurance Accounting	Students	**3.81**	1.193	High	7
		Accountants	**3.63**	1.118	High	7
21	knowledge of Hospitality Accounting	Students	**3.79**	1.224	High	8
		Accountants	**3.69**	1.175	High	6
22	knowledge of Public Sector Accounting	Students	**3.66**	1.251	High	9
		Accountants	**4.53**	0.921	very high	2
Total		**Students**	**3.44**	**1.199**	**High**	
Accountants		**3.51**	**1.148**	**High**		

Accounting Students' perceptions:

It is clear from table (8) that the overall mean of the responses was **(3.44)** with a standard deviation of (1.199) which ranged between (3.40-4.19>) with a high level of importance. It is obvious from table (8) that the average sample responses of the accounting students towards the importance of accounting knowledge in education varied considerably among them since the highest mean was (4.63) with a standard deviation of (1.102) which ranked the accounting knowledge statement number twelve» knowledge of «Finance» as the most important accounting knowledge in accounting education. Then came statement number sixteen «knowledge of Statistics» and "Quantitative Methods" in the second place with an average mean of (4.43) with a standard deviation of (1.086) as the second most important accounting knowledge. However, in the last place, the results revealed statement number one

"knowledge of Microsoft Office Program" which occupied the last rank as the least important accounting skill with an average mean of (2.71) and a standard deviation of (1.257) with a medium level of importance.

Accountants' perceptions:

It is clear from (table 7) that the overall mean of the responses was **(3.51)** with a standard deviation of (1.148) which ranged between (3.40-4.19>) with a high level of importance. It is obvious from (table 7) that the average sample responses of the accountants towards the importance of accounting knowledge in education varied considerably among them since the highest mean was (4.63) with a standard deviation of (1.113) which ranked the accounting knowledge statement number twenty-two «knowledge of Microsoft Office Program» as the most important accounting knowledge in accounting education. Then came statement number twenty-two «knowledge of Public Sector Accounting» in the second place with an average mean of (4.53) with a standard deviation of (0.921) as the second most important accounting type of knowledge. However, in the last place, the results revealed that statement number fifteen "knowledge of Business Mathematics' occupied the last rank as the least important accounting type of knowledge with an average mean of (2.89) and a standard deviation of (1.331) with a medium level of importance. This finding supports that view of Mladenovic (2000) who argues that students are also more inclined to perceive accounting as having an affinity with subjects like mathematics and statistics. This ranking supports the research results by Uyar and Gungormus, (2011) which showed that the most required knowledge for accounting graduates, according to employers, are Microsoft Office program, accounting financial standards, financial statement analysis, and financial accounting. Therefore, these results are in line with the research of Thottoli, (2020) who found that using Microsoft is necessary in all accounting fields, even in small and medium enterprises.

5. Conclusion

This study aimed to investigate the perceptions of accounting students and accountants towards the importance of accounting topics, skills and knowledge in accounting education. The study also attempted to compare their views

towards accounting topics, skills and knowledge that accounting students and accountants believe are important for them. The findings of the study revealed real differences between accounting students and accountants' perceptions as to what is important in accounting education. The findings of the study also demonstrated that accountants placed an emphasis on learning traditional accounting topics while accounting students placed an emphasis on learning contemporary accounting topics. Moreover, the findings revealed that both groups were not in agreement on the importance of accounting topics, skills and knowledge in accounting education and real differences existed between the perceptions of accounting students and accountants towards the importance of accounting topics, skills and knowledge in accounting education.

6. Limitations of the study

This research has a number of limitations that will lead to more future research opportunities to get more insights into what is really important for academics and practitioners. One of the main limitations is the small size samples of the study. Secondly, this study was quantitative in nature and there was no interview or group discussions of students and accountants that could have supported the findings of this study. Thirdly, although the findings of this study were generally found to be consistent with that of prior studies, therefore, they cannot be generalized. Therefore, these limitations should be considered for future research studies.

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