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ACCOUNTING PROFESSIONALS**

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**Abstract:**

Unemployment can be considered as global challenge faced by almost all countries. However, further analysis by the Department of Statistics of Malaysia (DOSM) revealed a worrisome detail in which the rate of skill-related underemployment graduates continues to rise up recording 33.9 per cent in 2021 as compared to 31.2 per cent in 2020. Skill-related underemployment graduates is identified as occupation mismatch taking into consideration their educations, knowledge and skills were not fully utilised to their current work. Occupation mismatch may be worsened with the rapid growth of information and communication technology (ICT) and accounting graduates is no exception. Accounting profession is notified to also be highly at risk of being digitalised and automated in the near future. Accounting graduates with top academic credentials may still possibly failed to secure jobs because employers may view certificate and approval requirements are not enough. Instead, they require more incremental benefits such soft skills, communication skills, leaderships skills and ability to work in team. Importantly, students need to be aware of the employment needs and equipped themselves with skills beyond classroom learning before they finally graduated. To address this issue, this study will be carried out with the purpose to identify the important of accounting skills required for employment in accounting profession. A group of accounting students will be identified to participate this research. This research employs qualitative approach utilizing structured interviews which will be conducted through several medium of communication namely, phone calls and online questionnaires distributed through instant messaging application using Google form. The findings from this study are hoped to provide some suggestions of programs, activities, or new approaches on improving and enhancing accounting graduates' skills that would transform them into highly marketable graduates.

Keywords:

Accounting Graduates, Accounting Skills, Digital Era, Internship

Introduction

The outbreak of pandemic COVID-19 in 2020 had shaken the world by surprise and weaken the global economy overnight. Fortunately, despite the struggle faced by most countries globally, Malaysia has demonstrated an increase in economic performance by 3.1 per cent in 2021 (Department of Statistics Malaysia (DOSM, 2022a). Accordingly, Malaysian labour force also showed a recovery momentum in the same year when it recorded higher labour force participation. Though, it also caused the unemployment rate to increase slightly by 0.1 percentage point to record 4.6 per cent. The increase in the labour force in 2021 may be due to the increased in the number of Malaysia's graduates by 4.7 per cent to record 5.61 million persons as compared to 5.36 million persons in 2020. Opportunely, the increase in the number of graduates did not contribute to the slight increase in the unemployment rate since the percentage of unemployed graduates has reduced by 2.5 per cent in 2021 (Department of Statistics Malaysia (DOSM, 2022b).

However, further analysis by the Department of Statistics of Malaysia (DOSM) also revealed a worrisome detail in which the rate of skill-related underemployment graduates continues to rise recording 33.9 per cent in 2021 as compared to 31.2 per cent in 2020. The Department identified this skill-related underemployment graduates as occupation mismatch taking into consideration their educations, knowledge and skills were not fully utilised to their current work. 1.50 million graduates were largely employed as Clerical support workers (14.4%) followed by Service and sales workers (10.8%). Another 4.2 per cent as Craft and related trades workers and 106 thousand graduates (2.3%) were employed in low-skilled category. This worrying situation could lead to a more serious issue when it was reported that 72 per cent of Sijil Pelajaran Malaysia (SPM) leavers chose not to further their studies (Musalib, 2022, July 31) and almost 25,000 SPM candidates chose not to even sit for the exam in 2021 (Chan, 2022, July 16). This had already been a global issue when Chairman of the Economic Affairs Committee of UK Government in August 2017 notified the cost of going to university is increasing, but many graduates do not end up in jobs requiring a degree and will not be able to pay back their loans. Occupation mismatch may be worsened with the rapid growth of information and communication technology (ICT) and accounting graduates is no exception (Adenle et al., 2020).

During the last few decades, digitalisation is transforming the world in almost every aspect of life. The access to internet, increase of people using mobile phones, social media and other ICT services changed the way people interact, communicate, learn and work in almost every country (Laura Schelenz 2018; Parviainen et al., 2017). To become more competitive in this 4.0 era almost all individuals in organizations from the executives to the bottom-line employees must participate in the adaptation of various technologies. (Chengseng et al., 2022). The wide spread of the pandemic COVID-19 in 2020 that restricted physical movements as well as social activities had boosted the need for everybody to be in the know of this information technology. Accounting profession is notified to also be highly at risk of being digitalised and automated in the near future. Intrinsically, in combating this economy challenges era professional accountants are required to be skillful and mastered with technical knowledge (Rosli & Yahya,

n.d) and ICT capability as well. Numerous types of accounting software developed had eliminated the need to use calculating machines for arithmetic calculations in accounting and excessive use of papers and loss of records can be minimised. Furthermore, this accounting software have eased the preparation of book-keeping functions that individual who does not possess any accounting knowledge can complete the tasks.

COVID-19 post pandemic economic recovery phase positioned businesses in fierce competition and budget restriction. As such organizations and businesses are prompted to be quite selective in the recruitment process and may want to hire employers that can provide highest value for money. They would desire competent, skilled, and highly knowledgeable human capital (Nor Shela Saleh et al., 2022). Accounting graduates with top academic credentials may still possibly failed to secure jobs because employers may view certificate and approval requirements are not enough. Instead, they require more incremental benefits such soft skills, communication skills, leaderships skills (Hamidah et al., 2017) and ability to work in team (Abd Majid et al., 2020; Thoma et al., 2019; Wei et al., 2022). Consequently, accounting graduates need to beat the automated machines by equipping themselves with human skills to stay relevant for years to come. Importantly, students need to be aware of the employment needs and equipped themselves with skills beyond classroom learning before they finally graduated. To address this issue, this study will be carried out with the purpose to identify accounting graduates' important skills that they should equip themselves for their future employment in accounting profession.

Literature Review

Occupation Mismatch in Accounting Profession

In general, a job-education mismatch can be categorized into vertical mismatch and horizontal mismatch. According to the European Centre for the Development of Vocational Training education mismatch has been identified in two ways such as vertical mismatch and horizontal mismatch. The vertical mismatch is where the level of education that an individual is having is not suitable for the job. This can be in two ways, over education or under education. Over education exists when an individual is hired for a job which requires lower level of education than the individual possesses while under education exists where the individual is having lower level of education than the job requires. The logical result of vertical mismatch is the presence of overeducated workers when the skills they bring to their jobs exceed the skills required for that job (Chen et al., 2020; Shahidan et al., 2019). It is a condition where the level of the individual's actual educational qualifications higher than the level of educational qualifications required for the occupation (Buchel & Pollmann-Schult, 2004). While undereducated workers' skills are inferior compared to those required for the job. According to both these situations can have negative consequences for the labour market. However, in recent decades, there was a tendency towards a large increase of overeducated workers rather than the under educated in jobs. (Senarath et al., 2017). Horizontal mismatch occurs when the type of education or skills that an individual is having is inappropriate for the job. In accordance with horizontal mismatch person does a job unrelated to his or her field of study (Robst, J., 2007). In other word, mismatch exists in the labour market in the form of educational or skills mismatch.

In addition, Farooq (2011) explained that there are three categories of occupation mismatch which are (i) education-job mismatch meaning a mismatch between the education acquired and job requirement, (ii) qualification-job mismatch which happens when graduates are overqualified or not qualified for the job, and (iii) field of study-job mismatch is the wrong

match of field of study and the field of job. While, The International Labour of Organization (ILO) classifies job mismatch into two types, namely (1) a mismatch between demand and supply of skills based on a comparison of education of working and unemployed people, and (2) a mismatch of skills by comparing education attained and education required by the occupation.

Despite its low unemployment rate, the Malaysia labour market is currently sending signals of mismatch, a misallocation between demand and supply that may occur in the form of educational, skills, geographical, occupational, and industrial mismatches. This is supported by previous study from Shahidan et al., (2019) regarding job mismatch and overeducation among graduates in Malaysia. They found that the percentage of overeducation in Malaysia had increased either for the degree or diploma holders. They also conclude that the highest proportion of overeducated was from diploma holders instead of degree holders.

Then, according to the Chartered Institute of Management Accountants (2014), having earned degrees to enhance their employability, many Financial and Management Accounting graduates are now underemployed or jobless because there is not enough demand for their skills, so they are being pushed to accept any job opportunities that come their way for them to sustain their needs. In such cases, Financial and Management Accounting students face a jobs-skills mismatch wherein the training of jobseekers simply does not match the requirements of the companies looking for people to fill their vacancies. Therefore, accounting students should take it seriously about the issues of occupation mismatch to ensure they are employed in profession.

Category	Description	Previous studies
Vertical Mismatch	Overeducation: Workers possess higher education levels than required for their jobs. Undereducation: Workers possess lower education levels than required.	Chen et al., (2020), Shahidan et al., (2019), Buchel & Pollmann-Schult (2004), Senarath et al., (2017)
Horizontal Mismatch	Workers possess an education or skills in a field unrelated to their job	Robst (2007)
Three Categories of Occupation Mismatch	Education-job mismatch: Mismatch between education acquired and job requirement. Qualification-job mismatch: Graduates are overqualified or underqualified for the job. Field of study-job mismatch: Mismatch between field of study and job field.	Farooq (2011)
ILO Classification of Job Mismatch	Demand and supply mismatch: Comparison of education of working and unemployed people. Skills mismatch: Comparison of education attained and required by occupation.	International Labour Organization (ILO)
Malaysia Labour Market	Despite low unemployment rates, signals of mismatch in various forms (educational, skills, geographical, occupational, industrial).	Shahidan et al., (2019)

	Increased overeducation among degree and diploma holders.	
Accounting Profession Specific	Financial and Management Accounting graduates: Underemployed or jobless due to a lack of demand for their skills. Job-skills mismatch leads to taking any available job.	Chartered Institute of Management Accountants (2014)

Table 1: Summary of Literature review on Occupation Mismatch in Accounting Profession

Accounting Graduates' Important Skills In The Profession During Digital Era

The digital era is transformation of ideas and the adoption of technology in business operation. According to Chengseng et al., (2022), the operating sector not only requires major changes, but this also includes the cultural changes that organizations and personnel from all sectors. From the executives to the bottom-line employees must participate in the adaption of this transformation to industry 4.0 era to increase the organization's capacity to complete in this era of fierce competition. Thus, the accounting profession also affected with the digitalisation era. Accounting profession is an important profession to all agencies, both public and private sectors (Chengseng et al., 2022; Woraphan Rattanasongthan et al., 2021). An accountant who can quickly adapt to the needs and abilities of today's era must always update the relevant knowledge and skills to become good accountant. According to Ghani & Muhammad (2019), with the rise of smart technology in digital era or Industry 4.0, there is a need for acquiring and developing technological skills among young accounting graduates. The accounting employers believed that the automation of accounting processes will demand graduates who can work under this new way of work as most of accountant's work are being replaced by machines and devices in the future. The young accountants also need to emphasize on solid technical skills and ethics supported by strong communication skills in digital Industry 4.0 (Raporu, 2016).

According to Chengseng et al., (2022) adaptation and flexibility skills, creativity and innovation skills, data skills, analytical thinking skills, digital skills, emotional intelligence skills and lifelong learning skills are among the necessary skills for the future accounting graduates. Yohmad & Prabrat (2022) state that professional accounting skills that affect the quality of work performed within an accounting firm are [1] knowledge, [2] accounting skills, [3] information technology and [4] proficient communication skills.

While, Khanh (2018); Purnamasari et al., (2019) and Rhodes & Rhodes (2019) strongly believed that acquisition of knowledge and skills in IT is increasingly important as we move towards the digital era. Advantages are given to graduates who can work with IT tools. Moreover, the right combination of technical and soft skills is relevant to Industry 4.0 is crucial to be instilled in young accounting graduates. Kruskopf et al., (2020) listed relevant technical and soft skills suitable for Industry 4.0 employment. The technical skills are recognized as analyzing, understanding and having sufficient knowledge on the function and capabilities of software and data security. These skills will enable young accountants to interact and work well with smart technologies. The soft skills consist of communication, conflict solving, leadership, risk management, creativity and strategic decision making, emotional intelligence, sales knowledge, adaptability and customer service orientation. These will help graduates to become experts as financial information providers that can create value to the organisation (Kruskopf et al., 2020).

Moreover, De Villiers (2010) had identified five essentials skills that are relevant in dealing with complex and constantly changing business environment. The skills are known as communication skill, leadership and teamwork skills, problem solving and thinking skills, ethical and moral values, and self-management skill. Another study conducted in search of the right skills that are compatible with Industry 4.0 employment was carried out by Tsiligiris & Bowyer (2021). The authors listed four important skills that will help accountants in facing technological disruption in accounting and business. The skills are related to ethics, business, digital and data, and soft skills. These are said to be the skills for success. Possession of these skills will help accountants to adapt to changes in their job function and role as an accountant. Mastering the non-financial skills like analytical skills, information technology skills as well as leadership skills (Surianti, 2020) will help future accountants to work well with technologies as well as to cope with great pressures from business and society. In fact, these skills are beneficial as the role of an accountant now move towards strategic and far-sighted vision that is aligned with Industry 4.0.

Apart from the aforementioned skills identified in previous studies, The World Economic Forum (2016) has outlined ten critical and vital skills for Industry 4.0. These skills would help accountants face the challenge of future of work in digitalization era. The recognized skills are complex problem solving, critical thinking, creative thinking, people management, coordinating with people, emotional intelligence, judgment and decision making, orientation towards service, negotiation ability, and cognitive flexibility (World Economic Forum, 2016). Undoubtedly, these skills are the accent of Industry 4.0 candidates' selections. Possession of these skills will be beneficial to the graduates as it will help them to thrive in the future workplace. It is crucial for accounting graduates to develop these skills and create a strong skills profile before embarking Industry 4.0 employment.

The table below (Table 2) has summarized about accounting graduates' important skills in the profession during digital era from the previous studies.

Category of skills	Description	Previous studies
Technological and Soft Skills for Industry 4.0	Importance of acquiring and developing technological skills to work with smart technology and automation in accounting.	Ghani & Muhammad (2019), Khanh (2018), Purnamasari et al., (2019), Rhodes & Rhodes (2019)
	Technical skills: Analyzing, software functions, data security. Soft skills: Communication, conflict solving, leadership, creativity, strategic decision making, emotional intelligence, adaptability, customer service.	Kruskopf et al., (2020)
	Ethics, business, digital and data skills, soft skills for adapting to changes in job roles and functions.	Tsiligiris & Bowyer (2021)

Professional Accounting Skills	Knowledge, accounting skills, information technology skills, proficient communication skills. Adaptation and flexibility, creativity and innovation, data skills, analytical thinking, digital skills, emotional intelligence, lifelong learning.	Yohmad & Prabrat (2022), Chengseng et al., (2022)
Skills for Complex Business Environment	Communication, leadership and teamwork, problem solving and thinking, ethical and moral values, self-management.	De Villiers (2010)
Non-Financial Skills	Analytical skills, information technology skills, leadership skills for strategic roles and coping with business pressures.	Surianti (2020)
Critical Skills for Industry 4.0	Complex problem solving, critical thinking, creative thinking, people management, coordination, emotional intelligence, judgment, decision making, service orientation, negotiation, cognitive flexibility.	World Economic Forum (2016)

Table 2: Summary Of Literature Review On Accounting Graduates' Important Skills In The Profession During Digital Era

Research Methodology

The main purpose of this study is to identify accounting graduates' important skills that they should equip themselves for their future employment in accounting profession. Therefore, this study shall apply qualitative approach. Online questionnaires distributed through instant messaging application using Google form to the participants. The participants for the study comprise final year students studying in Bachelor Degree of Accountancy in Universiti Teknologi MARA (UiTM) Cawangan Kelantan after they completed their 24 weeks of internship program. The selected sample consists of undergraduates accounting students who are enrolled in industrial training during the September 2023 to February 2024 semester. The questionnaires through Google form are filled in by 138 accounting students after they have completed their internship programme, but we were unable to analyze the responses from 2 respondents since we did not receive any answer.

The open-ended questions asked are as follow:

1. In your opinion, could you list down the skills that are important and needed by accounting students during industrial training?
2. In your opinion, could you list down the technical skills for accounting students to meet the needs of employers during industrial training?
3. In your opinion, could you list down the skills that help students a lot in their industrial training?

Data collected will be analyzed using qualitative research techniques to identify common themes from participants.

Findings

The objective of study is to identify the important skills experienced by accounting graduates throughout their internship programme. After completing a 24-week internship program, final-year accounting students were asked to list the essential skills or abilities required in the accounting profession. From the analysis of data collection, the results are shown in Table 1. We are summarizing our findings into three categories of skills as shown in Table 1:

Category 1: Technical Knowledge	Category 2: Soft skills	Category 3: Other skills
Accounting software (UBS, SQL) & Audit software	Communication skill	Critical thinking, analytical skills
Basic accounting knowledge, auditing, taxation, & business general knowledge	Time management skill	Adaptability skills
Microsoft office (Microsoft word and excel)	Teamwork skills	Independent skills
Information Technology (IT) knowledge	IT skills	Problem-solving skills

Table 3: Summary On The Important Skills Experienced By Accounting Graduates During Internship Programme.

Category 1: Technical Knowledge

Based on the above data (Table 3), students experienced from internship program informed that they should have knowledge about audit software (54 respondents), accounting software like UBS and SQL, and fundamental accounting knowledge about taxation, auditing, and business operations (56 respondents). And, according to 72 respondents, Microsoft Office (Microsoft Word and Excel) is the most crucial knowledge in the digital age. Some of responses from students on the given questions are following;

"Proficient in using accounting systems such as UBS, SQL and even Microsoft Excel". (Participant 6)

"In my opinion, students need to have Microsoft word and excel skills. In addition, students who are good at using SQL are good because many companies also use SQL systems." (Participant 24)

"Skill in using excel, communication skills and accounting software skills". (Participant 39)

The finding is aligning with the results of the research conducted by Alobaidani et al., (2023). They also found that both Microsoft Excel knowledge and skills are the most important skills in accounting education among the Omani accounting students for the future accounting profession. This result also supported by Rotondo (2020) where the study has found that employers in digital era consider Microsoft excel skills to be the most important technical skill for entry-level accountants.

Participants also mentioned that knowledge on information technology (IT) or skill in using computer also needed to help them excel in accounting profession. Students require the expertise in IT and competency in Microsoft excel program to help them in making financial statement analysis when performing the accounting task. (Aryanti & Adhariani, 2020). This is supported by previous researchers as such Khanh (2018); Purnamasari et al., (2019) and Rhodes & Rhodes (2019) strongly believed that acquisition of knowledge and skills in IT is increasingly important as we move towards the digital era. Some of the participant's answer is summarized as follows:

"One of them is computer skills. The use of a computer is highly needed because every task is carried out using computer software such as Microsoft and others. Most of company documents are recorded using a computer system". (Participant 31)

"Computer skills, skills in using software and systems". (Participant 75)

"Skills in using Microsoft Office software, Data analysis and technology skills". (Participant 87)

"Skills in IT and communication skills" (Participant 134)

"1) Students need to have a basic knowledge in using Excel or most likely advanced excel skills, 2) Student should acknowledge some business intelligence software, 3) Students should have basic understanding in cloud computing". (Participant 111)

From the above responses, Participants 31, 75 87, 111 and 134 are informed that future accountants need to have IT knowledge and skills that are relevant to their roles to provide competent and professional services in digital era.

Category 2: Soft Skills

Then, the most important soft skill from accounting students experienced during internship programme is communication skills, followed by time management skills, teamwork skills and IT skills. About 88 participants out of 136 of the students' have stated that they should have good communication skills to communicate with the client, colleagues, and outsiders during performing the accounting service. Some of students' responses as shown below:

"Communication skills to get along better, always smile and always ask questions about things we don't understand. Alhamdulillah, it seems that the staff like it when the students ask a lot because they understand that we don't understand something". (Participant 25)

"Communication skills with employees greatly help students to carry out the tasks given during industrial training". (Participant 35)

"Communication skill, so that you can talk confidently with your seniors and clients. – Teamwork skill in doing audit work, you'll always be in a team especially when doing audit for medium size company and holdings company". (Participant 68)

"Skills in communicating with staff, seniors and managers in solving problems, skills in communicating with clients to obtain documents and learn about the client's business in more

detail, skills in using excel in a formatted way, skills in completing assignments within the given time period". (Participant 77)

"In my opinion, socializing and communication skills are very important during industrial training so that we can easily understand the tasks given and it is easy to complete the tasks given". (Participant 108)

In addition, students also state that the other important soft skills are including time management skill and teamwork skills as the students' responses from Participants 94, 97, 120 and 133 were summarize below:

"Knowledge in the field of accounting, basic knowledge of the use of relevant software, good time management". (Participant 94)

"Problem solving skills and working in groups" (Participant 97)

"Time management skill as [because] we are given a lot of client and task in a time". (Participant 120)

"Skills to communicate well either with customers or colleagues, skills to solve a problem in a short time, skills to work in groups, and good time management" (Participant 133)

Our findings are in line with finding from Yohmad & Prabrat (2022) stated that professional accounting skills that affect the quality of work performed within an accounting firm are [1] knowledge, [2] accounting skills, [3] information technology and [4] proficient communication skills. While, in an employer survey conducted by the Slovak Centre of Scientific and Technical Information showed only one third of employers employed university graduates in the last two years (Jankova, 2015) and the employers were reluctant to hire graduates mainly due to the lack of practical experience. Employers in United Kingdom mentioned that what are lacking from their job applicants are operational skills required for the job i.e. solving complex problems, technical and practical skills. The applicants were also identified to be weak in those necessary for interpersonal relationship such as time management and customer care (Lisa et al., 2019).

Category 3: Other Skills

Besides, the other important skills that are required by accounting graduates are analytical and critical thinking skill, adaptability skill, independent and problem-solving skill. Critical thinking skills is the students' ability to analyse financial data, identify trends, and make informed recommendations based on their analysis. While, adaptability skills are referring as the accounting profession is constantly evolving, so future accountants need to be able to adapt to changes in technology, regulations, and industry standards. The responses from Participants 95, 111, 114 and 122 have stated that the analytical or critical thinking skills and problem-solving skills are important skills to assist them in completing the task during internship programme. Meanwhile participant 131 has mentioned that the adaptability and independent skills were important in future career as professional accountants as summarize below:

"Basic software skills (Microsoft, excel, etc), analytical skills". (Participant 95)

"...1) Critical thinking 2) Time management 3) Analytical and problem solving 4) Willing to learn during internship 5) Give full attention to every detail. (Participant 111)

"Technical skills and critical thinking in solving problems" (Participant 114)

"Strong understanding of accounting principles and practices, Data analysis skills, Problem-solving and critical thinking skills". (Participant 123)

"Adaptability, communication skills, high confidence level, high desire to learn". (Participant 131)

This is supported by International Education Standards for Professional Accountants consists of five skills namely [1] cognitive skills, [2] academics and practical skills, [3] personal character skills, [4] interpersonal and communications skills and [5] organisation and business management skills (Yohmad & Prabrat, 2022). To be able to provide service to various types of businesses, professional accountants also need to keep themselves up to date of the current changes faced by those businesses.

Moreover, in 2019, the CGMA (Chartered Global Management Accountant) released the CGMA Competency Framework 2019 to assess the skills of accountant needed to fit in with the environment and current situation. The Framework consists of [1] professional skills, [2] business skills, [3] Digital Skills, [4] Personnel Skills and [5] Leadership Skills. There are a lot is expected for accountant in this challenging global market. The accounting graduates need to develop professional knowledge and capability, professional values, professional ethics and attitudes along with knowledge in information technology as well as interpersonal skills to ensure they will survive in the dynamic working environment.

Therefore, previous researcher has suggested that accounting teachers should put emphasis upon competencies on professional learning, capacity for creative thinking and problem solving, effective communication and interpersonal relations, analytical and spreadsheet skills Asonitou (2021) to help accounting students to be more employed and successful in their future career as professional accountant.

Conclusion and Recommendation

From the study, we are summarizing the essential skills that are valuable for future accountants into three categories: [1] Technical Knowledge, [2] Soft Skills and [3] other skills. For the first category, the accounting graduates have suggested that the important knowledge should be possess in accounting career can be ranking as follows; knowledge on accounting software (UBS, SQL) & Audit software, basic accounting knowledge including of auditing, taxation, and business general knowledge, followed by the knowledge and expertise on the using of Microsoft office (Microsoft word and excel) and knowledge on the using and application of Information Technology (IT). Then, for the soft skills, the most important skills suggested by students are following, communication skill, time management skill, teamwork skills and IT skills. Meanwhile, the other skills that state by students after experienced of 24 weeks internship program are critical thinking, analytical skills, adaptability skills; the accounting profession is constantly evolving, so students need to be able to adapt to changes in technology, regulations, and industry standards, independent skills, and problem-solving skills. As a result, the study's findings will assist accounting instructors, particularly educational institutions, in

better applying to students and improving accounting graduates' marketability. The combination of all these abilities can help future accountants flourish in their profession.

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