Adopting Competency-Based Accounting Education in Algeria: A Proposal Integrating CBAETC Guide and IES Standards

اعتماد التعليم المحاسبي القائم على الكفاءة في الجزائر: مقترح لدمج دليلCBAETC ومعاييرIES

Khalid DJEFFAL*[1]		Nour El-Houda HADDAD[2]
University of Oum El Bouaghi, Algeria khaled.djeffal@univ-oeb.dz		University of Oum El Bouaghi, Algeria nourelhouda.haddad@univ-oeb.dz

Received: 20/04/2024	Accepted: 20/05/2024	Published: 01/06/2024

Abstract

This study addresses the need for reforming accounting education in Algeria by proposing the adoption of a competency-based education (CBE) approach. Drawing upon the Competency-Based Accounting Education, Training, and Certification (CBAETC) guide and the International Education Standards (IES), the research presents a proposal framework for implementing CBE within the Algerian context. The proposed framework emphasizes the development of practical skills and competencies alongside theoretical knowledge, aligning accounting education with the evolving demands of the profession and the needs of the Algerian economy. The study outlines key implementation stages, including curriculum redesign, assessment development, faculty training, and stakeholder engagement. While acknowledging potential challenges, the research highlights the significant benefits of CBE for graduate employability, the quality of accounting practice, economic growth, and global recognition. This study provides a roadmap for transforming accounting education in Algeria and equipping graduates with the competencies necessary to thrive in the modern business environment.

Keywords: Competency-based education; accounting education; CBAETC guide; IES standards.

JEL Classification: M41, I21.

ملخص

تتناول هذه الدراسة الحاجة إلى إصلاح التعليم المحاسبي في الجزائر من خلال اقتراح اعتماد نهج التعليم القائم على الكفاءة**(CBE)** . بالاعتماد على دليل التعليم والتدريب والشهادات المحاسبية القائمة على الكفاءة **(CBAETC)** ومعايير التعليم الدولية **(IES)**، يقدم البحث إطارًا مقترحًا لتنفيذ التعليم القائم على الكفاءة في السياق الجزائري. يؤكد الإطار المقترح على تطوير المهارات والكفاءات العملية إلى جانب المعرفة النظرية، ومواءمة تعليم المحاسبة مع المتطلبات المتطورة للمهنة واحتياجات الاقتصاد الجزائري. تحدد الدراسة مراحل التنفيذ الرئيسية، بما في ذلك إعادة تصميم المناهج الدراسية، وتطوير التقييم، وتدريب أعضاء هيئة التدريس،

* Corresponding author.

[1] خالد جفال، جامعة أم البواقي، الجزائر.

[2] نور الهدى حداد، جامعة أم البواقي، الجزائر.

وإشراك أصحاب المصلحة. ومع الاعتراف بالتحديات المحتملة، يسلط البحث الضوء على الفوائد الكبيرة للتعليم القائم على الكفاءة فيما يتعلق بتوظيف الخريجين، وجودة الممارسات المحاسبية، والنمو الاقتصادي، والاعتراف العالمي. توفر هذه الدراسة خارطة طريق لتحويل تعليم المحاسبة في الجزائر وتزويد الخريجين بالكفاءات اللازمة للنجاح في بيئة الأعمال الحديثة.

الكلمات المفتاحية: التعليم القائم على الكفاءة؛ التعليم المحاسبي؛ دليل **CBAETC** معايير **IES** .

تصنيف JEL : M41, I21.

Introduction

Accounting education around the world is changing big time. Thanks to new tech, more global connections, and evolving roles for accountants, old-school teaching just can't keep up. Research led by Tavares and others in 2023 shows us why it's crucial to update our methods. These days, companies want accounting grads who can do more than crunch numbers. They're looking for folks who can think on their feet, solve problems creatively, and communicate clearly (according to the ACCA in 2016). So, education is shifting from just feeding students facts to really building up their skills—getting them ready for the tricky parts of today's accounting jobs (IFAC, 2014a).

Enter Competency-based education, or CBE. It's all about showing what you can do, not just what you know. This approach helps align school stuff with the real demands of the accounting world, making sure graduates can really perform at work (Johnstone & Soares, 2014; Abas & Imam, 2016). Key players in making this shift are two big guidelines: the CBAETC guide and the International Education Standards (IES) from the International Federation of Accountants (IFAC). These guidelines help schools figure out what skills to teach, how to test them, and make sure everything's up to snuff (IFAC, 2024). The CBAETC guide is a team effort from top accounting bodies and educators, laying out the must-have skills for accountants, like technical know-how, ethics, and teamwork (Borgonovo et al., 2019). The IES helps set a worldwide standard, making sure that all accounting education is top-notch, wherever you are (IFAC, 2014b). Both these frameworks stress the need for hands-on learning and constant checks to ensure that students are really learning what they need to.

Over in Algeria, there's a big push to get their accounting education up to these international standards (Kameli & Miliani, 2022). But there's still a way to go. Right now, there's a gap between old school methods that focus too much on theory and not enough on practice. A recent study by Kumari and others in 2023 is trying to close that gap, suggesting ways to bring CBE into Algerian

universities. This kind of research is super important—not just for teachers but for anyone in the accounting field. It's a roadmap for bringing schools in Algeria, and potentially other countries, up to speed with the best global practices. It's all about making sure future accountants are prepped for the global stage, ready to tackle the job with all the right tools.

1. Literature Review

There's a big change happening in accounting education around the world. More and more, the focus is shifting to competency-based education, or CBE. This change is catching the eye of educators and researchers everywhere, and for good reason. The job of an accountant is getting more complex, and companies aren't just looking for number crunchers anymore. They need people who can handle a variety of challenges and have a wide set of skills (ACCA, 2016; Bunney et al., 2015).

Traditionally, accounting education was all about loading up on knowledge. But now, there's a push to make sure education keeps up with what the profession actually needs. This means more practical, skill-based learning (IFAC, 2014a). While this new way of teaching is taking off globally, it's still catching on in places like Algeria. Research there shows that old methods are still in use and they're not quite up to the task. This gap highlights a real need for change and to bring Algerian education standards in line with global best practices (Kameli & Miliani, 2022; Kumari et al., 2023).

When it comes to teaching accounting in a way that really prepares students for the real world, Competency-Based Education (CBE) is leading the charge. Key to this approach are some important guides like the CBAETC guide and the IES Standards by the International Federation of Accountants (IFAC). These frameworks are not just about teaching the basics; they focus on developing the must-have skills for any professional accountant, including technical know-how, values, ethics, and teamwork (Borgonovo et al., 2019; IFAC, 2014b).

But there's more to it than just following guidelines. The way adults learn-really learn-plays a huge role in shaping these educational programs. Principles of adult learning, for instance, highlight how important it is for learning to be self-directed and relevant to real-life experiences (O'Toole & Essex, 2012). Meanwhile, constructivism tells us that learners build up their skills best by actively engaging with their environment and each other (Bruner, 2009). These ideas help shape CBE programs into active, engaging learning experiences that do more than teach facts they build the kind of competencies professionals really need.

Competency-Based Education (CBE) is gaining traction in accounting education, but it's not without its debates and challenges. One major discussion is about how much focus should be on

traditional, technical accounting skills versus broader skills like critical thinking, problem-solving, and communication. Some experts, like Tavares and colleagues in 2023, argue that a balance is necessary. Another issue is how to properly assess these skills. Traditional tests might not fully capture everything that a professional accountant needs to know and do. This has led educators to consider other methods like simulations, detailed portfolios, and real-world workplace assessments to better evaluate students' skills (Gammie & Joyce, 2014). There's also a conversation about whether accounting education should be standardized globally or tailored to fit local needs and cultural differences. While international standards like the IES aim for consistency and high quality, some believe that curriculums need to be adapted to better reflect the specific needs of each place (Fitzsimons et al., 2020).

Key researchers such as Gammie and Joyce have probed deeply into CBE, such as its operation with professions beyond accounting. In their findings, they highlight educational approaches which most closely mirror actual professional practice and robust methods of the assessment strategy. The CBAETC is a body of leading accounting educators and professionals who have played and continue to play an active and crucial role to develop and promote the CBE approach but also to assist educators to set up effective CBE programs (Borgonovo et al., 2019).

The research methods themselves are also developing in response. The use of case studies, surveys, and even experimental designs are to be seen to learn how effective CBE programs really are, what students are learning within them, and what employers think of the graduates. The mixed methods of research, combining qualitative and quantitative approaches, are ever more to be seen applied so that, within one study, it is possible to gain more detailed information on implementation processes and the specific outcomes of CBE. They have the same frame between the CBAETC guide and IES standards, which makes the research process more coherent at the same time as enabling sharing and comparison of insights across different settings, enhancing understanding of CBE in accounting education (Lurie & Garrett, 2017).

2. Research Design

Our study is aimed at developing a new framework for competency-based accounting education (CBE) in Algeria. We're focusing on a qualitative research approach which allows us to dig deep into the current situation of accounting education, uncovering the main challenges and opportunities for implementing CBE in the region. The goal is to create practical solutions that can be realistically applied to bridge the gap between the current educational practices and the professional demands of the accounting field in Algeria.

We will use in-depth data from resources like the CBAETC guide and IES standards to get a clearer picture of the needs and complexities of introducing CBE in Algeria. This includes a thorough review of the current accounting curricula, course materials, and relevant government policies that impact education and economic development. This comprehensive analysis will help us identify what needs to be improved in the existing system. To analyze the data, we'll employ thematic analysis, which will help us spot the major themes, patterns, and connections across the data collected from interviews, focus groups, and document reviews. This method will give us a detailed understanding of the issues at hand.

The outcome of this research is expected to make a significant contribution to how CBE can be implemented in Algeria. We plan to outline a specific framework that includes recommendations for updating the curriculum, assessment techniques, faculty training, and how to engage key stakeholders. This framework aims to be a useful tool for educational institutions, professional organizations, and government bodies looking to update accounting education and prepare a skilled accounting workforce for Algeria's growing economy.

3. Professional Competence in CBAETC guide and IES standards context

This section discusses the CBAETC Guide, IES Standards, and professional Competence.

3.1. The CBAETC Guide

The concept of CBAETC guide is detailed in the guide developed by the World Bank's Centre for Financial Reporting Reform (CFRR). The CBAETC guide was authored by Alfred Borgonovo, Brian Friedrich, and Michael Wells and published in 2019. This guide provides a comprehensive framework aimed at reforming accounting education to foster a competency-based approach rather than traditional knowledge-based methods (Borgonovo et al., 2019). The guide is primarily directed at Professional Accountancy Organizations (PAOs) and other educational bodies involved in accounting training. It is intended to assist these organizations in transitioning their educational models to focus more on practical competencies that are increasingly demanded by the global economic environment. The guide serves as a tool for these organizations to develop or enhance their accounting education programs to ensure that accountants are not only technically proficient but also adept in professional judgment and ethical decision-making.

Content-wise, the CBAETC guide outlines a structured pathway for implementing competency-based accounting education, which includes developing a competency framework, assessing current educational programs, and designing and implementing revised curricula that meet specified competency standards. The guide emphasizes the importance of aligning

educational outcomes with real-world skills and the expectations of employers, clients, and regulatory bodies. This alignment is crucial for producing accountants who are capable of contributing effectively to the global economy and maintaining high standards of financial reporting and ethical practice.

3.2. IES Standards

The International Education Standards (IES) play a pivotal role in shaping the accounting profession worldwide. Issued by the International Federation of Accountants (IFAC), these standards provide a comprehensive framework for the initial education and ongoing professional development of accountants, ensuring they can meet the demands of modern financial practices (IFAC, 2019).

The IES covers a broad range of essential topics for the training and certification of accountants. These include the qualifications needed to enter the profession, core technical skills in accounting and finance, and crucial professional skills like communication, problem-solving, and teamwork. Moreover, the standards highlight the importance of values, ethics, and attitudes, promoting professional judgment and ethical behavior.

Additionally, the IES specifies practical experience requirements and sets guidelines for assessing professional competence, making sure that theoretical knowledge is effectively applied in real-world scenarios. They also stress the importance of continuing professional development, which helps accountants stay competent throughout their careers. This aspect is increasingly vital given the constant evolution of financial regulations and practices (Jackson et al., 2023; Groenewald & Kilag, 2024).

These standards aim to equip professional accountants with the necessary tools to navigate the complexities of the field and contribute meaningfully to global economic development, a goal supported by research from Barac et al. (2016). Key stakeholders in these standards include Professional Accountancy Organizations (PAOs), educational institutions, and regulatory bodies. These groups utilize the IES to design education and certification programs, tailor curricula to international norms, and develop policies that ensure the competence and ethical behavior of professionals in the accounting industry (AlMotairy & Stainbank, 2014; Pratama, 2015).

3.3. Professional Competence

Professional competence is much more than only having knowledge. It is the application of this knowledge under practical life situations with the appropriate skills and judgment that must be exercised towards a positive result. Professional competence must blend technical knowledge,

problem-solving skills, communication and interpersonal abilities, and a sound ethical base (Hassall et al., 1996; Liu & Zou, 2009; Marriott et al., 2011; Murphy, 2017; Needles et al., 2001; Parsons et al., 2020). At the core of professional competence is technical knowledge. This includes the deep understanding of the theories, principles, standards, and procedures that are appropriate for the given profession (Hassall et al., 1996; Needles et al., 2001). However, knowledge is not sufficient in itself.

Professionals need to have the competency for analyzing complex situations, identifying problems, appraising alternative solutions, and rendering sound judgment based on information available and understanding of the professional setting concerned (Needles et al., 2001; Parsons et al., 2020). This implies sound critical thinking and the ability to apply theoretical knowledge to practical situations when it is demanded. Communication is also crucial when it comes to professional competence being able to explain complex information clearly and concisely in both written and verbal modes of communication and in the way appropriate for audiences and purposes being served (Murphy, 2017; Needles et al., 2001). There is a pressing call for a professional with the ability to engage in interpersonal skills in the process of teamwork, effective leadership, and conflict management for relationship development, team collaboration, and successful maneuvering through the complex web of professional interactions. Professional competence goes beyond technical or practical skills to attitudes and values. Upholding ethical standards and demonstrating professionalism is fundamental to maintaining public trust and ensuring responsible practice (Murphy, 2017; Needles et al., 2001).

This involves practicing with integrity, objectivity, and independence, demonstrating a dedication to the public interest, and upholding the values of the profession. In the current dynamic environment, the ability to learn and adapt continuously is the key to maintaining competence and being up-to-date (Needles et al., 2001; Parsons et al., 2020). This needs a commitment to lifelong learning, an open mind about new ideas and methods and a proactive stance on the professional development and improvement of oneself.

Professional competence is hence a lifelong process, which begins with the formal education and training programs (Liu & Zou, 2009; Marriott et al., 2011). These offer the foundation for the knowledge and skill that requires to enter the profession. However, the experience of practice is equally necessary to consolidate the understanding and create the competency necessary for putting the knowledge and skill into effective usage in the setting of practical situations (Marriott et al., 2011; Murphy, 2017). Continual reflection from experience and actively seeking feedback is essential in determining the areas that require improvement and which contribute to the growth of the professional involved (Murphy, 2017). Assessment of professional competence has to move

into avenues beyond the traditional forms of knowledge-based examinations to include methods that will assess the application of knowledge and skills to practical scenarios that mimic the actual work situation (Hassall et al., 1996; Liu & Zou, 2009). Case studies and simulation offer key tools to assess the individual's ability to analyze situations, apply their knowledge to analyze situations, and provide a sound judgment on them (Parsons et al., 2020). On the other hand, workplace-based assessments offer a more holistic approach by assessing performance within the actual work environment, incorporating observation, feedback, and self-assessment (Hassall et al., 1996).

According to the CBAETC Guide, competence is being able to conduct relevant tasks in real-world settings to a specific standard of proficiency. Knowledge and understanding alone do not make a person competent. Competence should be demonstrated through the application of relevant skills and a set of acquired attributes of somebody who has experienced something in a certain way. Professional competence, from an accounting point of view, is the demonstration of the relevant technical and professional skills, values, ethics, and attitudes at the proper proficiency level. Such a demonstration has to meet the expectations of the employers, the clients, the peers, and the public at large (Borgonovo, et al., 2019).

According to the International Education Standards (IES) framework (IFAC, 2019), professional competence encompasses more than just knowledge of principles, standards, concepts, facts, and procedures. It is the integration and application of technical competence and professional skills along with values, ethics, and attitudes that are indispensable in the accounting profession. Professional competence is a central theme running throughout the IES and is both vivid and explicit in many standards and implicit in others. For example, IES 1 targets Professional Accountants in Public Practice and elaborates on the need for accountants to maintain professional competence and due care in the performance of professional services. IES 2 targets Professional Accountants in Business and similarly elaborates the need for professional competence in the organizational activities. IES 3 targets Professional Accountants in Education highlights the role of educators in fostering and sustaining professional competence in ensuing generations of accountants. IES 4 elaborates on Professional Accountants being Auditors and vividly and explicitly underscores the need by auditors to maintain professional competence throughout the process of auditing. IES 7 is narrower and deals with Continuing Professional Development and establishes the mandate for ongoing professional development activities designed to maintain and enhance accountant competence. IES 8 is even more specific and targets Professional Competence for Engagement Partners responsible for audits of financial statements and elaborates on the competencies to be exhibited for the purpose of leading audit engagements.

CBE prioritizes the cultivation of competence over mere knowledge acquisition, a juxtaposition evident in a comparative analysis (Table 1) between these methodologies. Similarly, competency-based training and certifications surpass the conventional dissemination and requisition of knowledge, emphasizing the development and exhibition of targeted tasks and outcomes at predetermined levels of adeptness. While knowledge-based systems persist across various global locales, their efficacy remains constrained, failing to adequately prepare practitioners for the nuanced decision-making demands of professional environments. Consequently, the CBAETC guide endeavors to furnish aspiring and seasoned accountants with the requisite professional proficiencies for delivering pertinent services amidst the contemporary backdrop of rapid globalization and digitalization, wherein business transactions exhibit escalating complexity.

Table1. Comparison of CBE and knowledge-based education

KNOWLEDGE-BASED APPROACH	COMPETENCY-BASED APPROACH
Tests "Do you know how to...?"	Tests "Can you...?"
Focuses on what principles, concepts, facts or procedures need to be learned	Focuses on what tasks or outcomes need to be demonstrated
Focuses on theory and concepts	Focuses on practical application of theory
Sets minimum pass marks for percentage of knowledge that needs to be learned and conveyed in assessments	Sets minimum proficiency levels to be attained and demonstrated in order to be deemed sufficiently competent for a role
Often includes rote learning and tests memory	Includes hands-on learning and active engagement, and tests application of knowledge and skills in relevant contexts

Source :(Borgonovo et al., 2019).

4. Proposal to use the CBAETC Guide and IES standards

To effectively develop and implement a competency-based accounting education program in Algeria, utilizing the CBAETC Guide alongside the International Education Standards (IES), the program must be carefully adapted to meet the specific educational and economic characteristics of Algeria. This comprehensive approach will enhance the proficiency of Algerian accounting professionals, ensuring they meet both local and international standards. Here is an integrated plan based on the provided answers, detailing the implementation stages:

4.1. Understanding the Algerian Landscape:

Economic Realities: Algeria's economy, traditionally reliant on hydrocarbon resources, is actively pursuing diversification. This shift necessitates a skilled workforce capable of navigating complex financial landscapes across emerging sectors like renewable energy, tourism, and agriculture (Lefilef, 2020). The government's focus on improving the business environment and attracting foreign direct investment highlights the need for transparent financial reporting and strong corporate governance practices (Mahfoud & Louail, 2023). Accounting professionals equipped with advanced skills in areas like International Financial Reporting Standards (IFRS), auditing, and financial analysis are crucial to support this economic transition and foster sustainable growth. As Algeria seeks to integrate further into the global economy, accounting education reform aligned with international standards becomes paramount to ensure the competitiveness and relevance of its workforce.

Educational System**:** Algeria's education system emphasizes theoretical knowledge; however, a critical gap exists between graduates' skills and market demands (Ferhaoui & Ouyahia, 2022). The focus on rote learning and memorization often overshadows practical application and competency development. To address this, integrating experiential learning, industry collaborations, and skill-based training is crucial for aligning graduates' capabilities with the evolving needs of the job market (European Training Foundation, 2019). This shift would equip graduates with both theoretical understanding and real-world application skills, better preparing them for the dynamic job market.

4.2. Implementing the CBAETC Framework:

The proposal to integrate CBE according to the CBAETC Framework follows four basic stages:

Stage 0: Building the Foundation

- **Regulatory Alignment**: Review existing regulatory requirements for the accounting profession to take out the challenges and align with the tenets of CBE.
- **Resource Assessment**: Review in-house financial and human resources available in the universities, PAOs, and the private sector. Consider potential partnerships with international organizations or institutions for additional support and expertise.

- **Budgeting**: Develop a credible and realistic budget that takes into account all areas of need: curriculum development, training of the faculty, tools for assessment, and continuous program monitoring.

Stage 1: Defining the Competency Framework

- **Needs Analysis**: Take an in-depth study of the skills and competencies required of the Algerian accounting professional, considering the needs of the specific local economy and its diversification efforts.
- **Integration with the IES**: The competency framework should integrate the learning outcomes of the IES, i.e., technical competence, professional skills, ethics, and values, so that the program is in line with international trends and will facilitate the global mobility of Algerian accountants.
- **Stakeholder Engagement**: Engage employers, professional bodies, regulators, and academics in the process of developing the competency framework to see its widest acceptance and reflection of the market's needs.

Stage 2: Bridging the Gap

- **Gap Analysis**: Evaluate current accounting programs against the requirements of the established competency framework in order to identify discrepancies in the levels of knowledge, skills, and professional behaviors.
- **Curriculum Analysis**: Analyze the present curriculum in terms of its ability to deliver the desired competencies and identify any lacking or weak areas to be updated or enhanced.
- **Benchmarking**: Undertake a benchmarking study of Algerian accounting programs against those of other countries where IES-aligned, competency-based approaches have been successfully implemented in order to identify international best practices in this regard.

Stage 3: Developing a Competency-Based Program

- **Curriculum Renovation**: Design or redesign courses to fill gaps and align to the competency framework. Further development of the skills in the Algerian context via case studies, simulations, and relevant practical exercises.

- **Designing of Assessments**: Conduct assessments that are based on competencies focusing on evaluating the ability of students to apply their acquired knowledge and skills to real-world situations rather than focusing on rote memorization and theories.

- **Faculty Development**: The faculty should be trained on competency-based education such that they have the capacity to deliver this kind of education. This would include new pedagogy, new ways of designing assessments, and the use of technology in reinforcing students' learning.

Table 2 shows a scenario for competency-based simulation in developing education programs for accounting major students at bachelor and master levels.

Stage 4: Theorizing into Practice

- **Piloting**: Implement the upgraded curriculum and tests in a few institutions to gather data, identify areas for fine-tuning, and refine the program prior to full roll-out.

- **Monitoring and Evaluation**: The program's effectiveness should be evaluated regularly to tap data and feedback from the graduates, employers, as well as staff in making the necessary refinement and ensuring its liveliness to relevant outcomes.

- **Informal Stakeholder Communication**: Open the loop between the authority and all stakeholders involved in the program implementation to ensure that there is continued support for the program and information shared about the progress being made.

Table 2. Simulation of Competency-based in developing education Programs for Accounting Specializations for Bachelor's and Master's Degrees.

Educational Level	Bachelor's Degree		Master's Degree
	1st Year and 2nd Year	3 rd Year and 4 th Year	1st Year and 2nd Year
Proficiency Level	Foundational	Intermediate	Advanced
Competency Data/Learning Outcomes:	Define, describe, explain, summarize, solve (simple tasks)	Apply, analyze, decide, evaluate, interpret	Assess, research, integrate, evaluate, make judgments and resolve or make recommendations
Work environment levels of ambiguity, complexity, and uncertainty	Low	Moderate	High
International Education Standards for Accounting (IESs) Referenced in Curriculum Development: - **IES 1: Prerequisites for entering an accounting education; program** - **IES 2 : Technical competencie;** - **IES 3 : Professional skills;**	- **IES 1:** In setting the standards for admission into the specialization and controlling the quality of the educational program (considering the economic and regulatory environment; required foundational knowledge; clarifying the targeted skills and competencies; ...). - **IES** 2: Among the most critical requirements at this level are: ❖ Principles of Accounting	- **IES** 1: The requirements of this standard remain essential for controlling the quality of the educational program. - **IES 2**: Among the critical requirements at this level are: ❖ Advanced Management Accounting ❖ Accounting Policies ❖ Financial Management ❖ Taxation ❖ Auditing ❖ Governance and Internal Control ❖ Information Technology	- **IES** 1: The requirements of this standard remain essential for controlling the quality of the educational program. - **IES** 2: The educational program's requirements are similar to those of the previous level but are enhanced to match the ambiguity and complexity in the simulated work environment. - **IES** 3: This standard demand increasingly sophisticated professional skills as students progress through their educational levels, primarily focusing on: ❖ Cognitive Skills

- **IES 4: requirements for professional Values, Ethics and Attitudes**	❖ International Financial Reporting Standards ❖ Management Accounting ❖ Finance (Any Module in the field of finance) ❖ Commercial Law and Procedures ❖ Economics (can be Microeconomics) ❖ Information Technology ❖ Business Management - **IES 3:** The standard demands progressively advanced professional skills as students advance through their academic levels, primarily related to: ❖ Cognitive Skills ❖ Interpersonal and Communication Skills ❖ Personal Skills ❖ Organizational Skills	❖ Economics (can include Macroeconomics) ❖ Strategic Business Management ❖ Business and Regulatory Environment - **IES** 3: This standard requires progressively advanced professional skills as students ascend through their academic levels, primarily encompassing: ❖ Cognitive Skills ❖ Interpersonal and Communication Skills ❖ Personal Skills ❖ Organizational Skills - IES 4: This standard mandate adherence to a set of professional values and ethics, principally involving: ❖ Respect for Professional Standards ❖ Commitment to Social Responsibility	❖ Interpersonal and Communication Skills ❖ Personal Skills ❖ Organizational Skills - **IES** 4: This standard requires adherence to a set of professional values and ethics, chiefly involving: ❖ Development of professional skepticism ❖ Respect for professional standards ❖ Analysis of the consequences of unethical behavior ❖ Recognition of the impact of ethics within the organizational environment ❖ Commitment to social responsibility

Source: Prepared by researchers depending on CBAETC Guide and IES standards.

4.3. Sustainability and Long-Term Vision:

The successful integration of CBE into Algerian accounting programs, which can be achieved through four distinct stages, necessitates a focus on sustainability and a long-term vision. To ensure the enduring efficacy of this approach, four fundamental pillars must be established.

- **Continuing Professional Development:** Develop ongoing training programs that allow professionals to maintain and enhance their competencies throughout their careers, keeping pace with evolving market demands and international standards.
- **Technology Integration**: Incorporate relevant IT skills and tools into the curriculum, preparing graduates for the digital transformation of the accounting profession and ensuring their ability to leverage technology effectively.
- **International Collaboration**: Foster partnerships with international accounting bodies and educational institutions to facilitate knowledge exchange, promote best practices, and ensure the program remains aligned with global standards.

4.4. Benefits and Impact:

Implementing a CBAETC approach in Algeria will yield numerous benefits:

- **Enhanced Graduate Employability**: Graduates will possess the skills and competencies demanded by employers, increasing their competitiveness in the job market and promoting career advancement.
- **Improved Quality of Accounting Practice**: The focus on CBE will elevate the overall quality of accounting and auditing services in Algeria, enhancing financial reporting, transparency, and accountability.
- **Stronger Economy**: A more skilled and competent accounting workforce will contribute to economic growth and stability, attracting foreign investment and fostering trust in the financial system.

- **Global Recognition:** Aligning the program with IES will elevate the reputation of Algerian accounting qualifications and facilitate the mobility of professionals across international borders.

By adopting a comprehensive and collaborative approach, Algeria can successfully implement a competency-based accounting education program that addresses the unique needs of its evolving economy and meets international standards. This will not only benefit the accounting profession but also contribute to the country's overall economic development and its integration into the global marketplace.

Conclusion:

This study has explored the potential for elevating accounting education in Algeria through the integration of CBAETC and IES standards. The findings resonate with a growing body of international literature highlighting the need for reform in accounting education to address the evolving demands of the profession and the globalized business environment (Parsons et al., 2020; Kameli & Miliani, 2022; Cameran & Campa, 2016). Similar to research conducted in other developing nations, this study emphasizes the importance of moving beyond traditional knowledge-based approaches and embracing a CBE framework (Boritz & Carnaghan, 2016; Byrne et al., 2016; IFAC, 2014a).

The proposed framework, drawing upon the CBAETC guide and IES standards, offers a roadmap for developing a more comprehensive and relevant accounting curriculum in Algeria. By focusing on the development of both technical knowledge and essential pervasive skills like communication, critical thinking, and problem-solving, the framework aims to enhance the professional competence of future Algerian accountants (Tan & Laswad, 2018). This aligns with the findings of Murphy (2017), which highlighted the varying perceptions of professional competence and CPD practices among practitioners in different roles, emphasizing the need for a more holistic approach to development. Additionally, the study echoes the recommendations of Needles et al. (2001) and Hassall et al. (1996) by recognizing the importance of assessment in driving learning and advocating for the adoption of diverse assessment methods beyond traditional exams to effectively evaluate the development of professional competencies.

While this study primarily focused on the theoretical framework for integrating CBAETC and IES standards, it acknowledges the importance of practical implementation and evaluation within Algerian universities. The concerns raised by Marriott et al. (2011) regarding the potential

limitations of audit training in smaller firms and the need for synchronization between work-based training and examination-based learning further highlight the need for careful planning and collaboration among stakeholders. The study also recognizes the limitations of relying solely on document analysis and the need for empirical data from key stakeholders to validate the proposed framework and understand their perspectives.

Despite these limitations, this study offers a valuable contribution to the ongoing discourse surrounding accounting education reform in Algeria. The proposed framework provides a starting point for discussion and action, paving the way for further research and empirical validation. Future research directions could include:

- Piloting and evaluating the proposed CBE framework within Algerian universities. This would involve developing and implementing specific courses and assessments aligned with the CBAETC and IES standards, and collecting data on student learning outcomes and employer satisfaction.

- Conducting surveys and interviews with stakeholders to gather empirical data on their perceptions and experiences. This would provide valuable insights into the challenges and opportunities associated with CBE implementation and help refine the framework to better meet the needs of the Algerian context.

- Exploring the specific challenges and solutions related to faculty training and development. As highlighted by Brown & McCartney (1995), the transition to a CBE approach requires a shift in pedagogical mindset and the development of new skills and competencies among educators.

- Investigating the long-term impact of CBE on the professional competence and career success of Algerian accounting graduates. Longitudinal studies could track the progress of graduates over time, measuring their career progression, job satisfaction, and contributions to the accounting profession and the broader economy.

By embracing CBE and integrating CBAETC and IES standards, Algeria can equip its future accounting professionals with the competencies necessary to excel in the dynamic global business environment. This will not only benefit the accounting profession but also contribute to the

economic prosperity and development of the nation, ensuring that Algerian accountants are well-prepared to meet the challenges and opportunities of the 21st century.

References

Abas, M. C., & Imam, O. A. (2016). Graduates' Competence on Employability Skills and Job Performance. International Journal of Evaluation and Research in Education, 5(2), 119-125. https://doi.org/10.11591/ijere.v5i2.4530

ACCA. (2016, June). Professional accountants – the future: Drivers of change and future skills. https://www.accaglobal.com/content/dam/members-beta/images/campaigns/pa-tf/pi-professional-accountants-the-future.pdf.

AlMotairy, O. S., & Stainbank, L. J. (2014). Compliance with international education standards in Saudi Arabia: Policy and educational implications. Journal of business studies quarterly, 5(4), 1-20.

Barac, K., Gammie, E., Howieson, B., & Van Staden, M. (2016). The Capability and Competency Requirements of Auditors in Today's Complex Global Business Environment. (pp. 1–133). Retrieved from Edinburgh: ICAS website: https://www.icas.com/__data/assets/pdf_file/0003/239457/The-capability-and-competency-requirements-of-auditors-in-todays-complex-global-business-environment.pdf

Bedoui, M. (2019). Work-Based Learning in Algeria (pp. 1–43). Retrieved from European Training Foundation website: https://www.etf.europa.eu/sites/default/files/2019-04/Work-based%20learning%20Algeria_EN.pdf

Borgonovo, A., Friedrich, B., & Wells, M. (2019). Competency-Based Accounting Education, Training, and Certification: An Implementation Guide. Washington, DC: World Bank.

Boritz, J. E., & Carnaghan, C. A. (2003). Competency-based education and assessment for the accounting profession: A critical review. Canadian Accounting Perspectives, 2(1), 7-42.

Boritz, J.E., & Carnaghan, C. (2017). Competence-based Education and Assessment in the Accounting Profession in Canada and the USA. In: Mulder, M. (eds) Competence-based Vocational and Professional Education. Technical and Vocational Education and Training: Issues, Concerns and Prospects, vol 23. Springer, Cham. https://doi.org/10.1007/978-3-319-41713-4_13

Brown, R. B., & McCartney, S. (1995). Competence is not enough: Meta-competence and accounting education. Accounting Education, 4(1), 43-53. https://doi.org/10.1080/09639289500000006

Bruner, J. S. (2009). The process of education. Harvard university press.

Bunney, D., Sharplin, E., & Howitt, C. (2015). Generic skills for graduate accountants: the bigger picture, a social and economic imperative in the new knowledge economy. Higher Education Research & Development, 34(2), 256-269. https://doi.org/10.1080/07294360.2014.956700

Cameran, M., & Campa, D. (2016). Comments by the European Accounting Association on the International Accounting Education Standards Board Consultation Paper 'Meeting Future Expectations of Professional Competence: A Consultation on the IAESB's Future Strategy and Priorities'. Accounting in Europe, 13(2), 295-303. https://doi.org/10.1080/17449480.2016.1201578

Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. The psychologist, 26(2), 120-123.

Ferhaoui, M., &. Ouyahia, Z. (2022). Employers' perceptions of young graduates' employability in Algeria: How do recruiters view young Algerian graduates? Al Bashaer Economic Journal, 8(2), 808-820.

Fitzsimons, S., Coleman, V., Greatorex, J., Salem, H., & Johnson, M. (2020). Context Matters--Adaptation Guidance for Developing a Local Curriculum from an International Curriculum Framework. Research Matters, 30, 12–18.

Gammie, E., & Joyce, Y. (2014). Competence-based approaches to the assessment of professional accountancy training work experience requirements: The ICAS experience. In The Interface of Accounting Education and Professional Training (pp. 121-144). Routledge.

Groenewald, E., & Kilag, O. K. (2024). Automating Finances: Balancing Efficiency and Job Dynamics in Accounting and Auditing. International Multidisciplinary Journal of Research for Innovation, Sustainability, and Excellence (IMJRISE), 1(2), 14-20. https://doi.org/10.5281/zenodo.11123714

Hassall, T., Dunlop, A., & Lewis, S. (1996). Internal audit education: exploring professional competence. Managerial Auditing Journal, 11(5), 28–36. https://doi.org/10.1108/02686909610120514

IFAC. (2014a). International Education Practice Statement 2: Competency-based accounting education. (pp. 126–195). Retrieved from IFAC Organization website: https://www.ifac.org/_flysystem/azure-private/publications/files/ieps-2-information-techno-1.pdf

IFAC. (2014b). International Education Standard 8: Professional Competence for Engagement Partners Responsible for Audits of Financial Statements (pp. 1–17). Retrieved from IFAC organization website: https://www.iaesb.org/iaesb/publications/ies-8-professional-competence-engagement-partners-responsible-audits-financial-statements-revised

IFAC. (2019). The 2019 Handbook of International Education Standards. Retrieved from IFAC organization website: https://www.iaesb.org/iaesb/publications/2019-handbook-international-education-standards

IFAC. (2024). Broadening the Accountancy Profession's Reach in the Public Sector. Retrieved from IFAC organization website: https://www.ifac.org/knowledge-gateway/contributing-global-economy/publications/broadening-accountancy-profession-s-reach-public-sector

Jackson, D., Michelson, G., & Munir, R. (2023). Developing accountants for the future: new technology, skills, and the role of stakeholders. Accounting Education, 32(2), 150-177. https://doi.org/10.1080/09639284.2022.2057195

Johnstone, S. M., & Soares, L. (2014). Principles for developing competency-based education programs. Change: The Magazine of Higher Learning, 46(2), 12-19. https://doi.org/10.1080/00091383.2014.896705

Kameli, M., & Miliani, A. (2022). Accounting Education in Algeria: The Road to IAES. Administrative And Financial Sciences Review, 6(01), 528-545.

Kumari, R., Tiwari, R., Akhtar, R., & Gupta, S. K. (2023). Traditional teaching method Vs Modern teaching method. GPH-International Journal of Educational Research, 6(11), 80-85. https://doi.org/10.5281/zenodo.10429275

Lefilef , A. (2020). The Role of Foreign Direct Investment in Achieving Economic Growth, Surveying a Group of International Experiences with Emphasis on the Case of Algeria: Empirical Study for the Period 1990-2018 (Doctoral dissertation, Kasdi Merbah University-Ouargla). Retrieved from http://dspace.univ-ouargla.dz/jspui/handle/123456789/26333

Liu, S., & Zou, C. (2009). Survey on demand for accounting talents and evaluation of professional competence. Presented at the 2009 IEEE International Symposium on IT in Medicine &

Education, Jinan, China. Retrieved from https://ieeexplore.ieee.org/abstract/document/5236220

Lurie, H., & Garrett, R. (2017). Deconstructing competency - based education: An assessment of institutional activity, goals, and challenges in higher education. The Journal of Competency - Based Education, 2(3), 1 – 19. https://doi.org/10.1002/cbe2.1047

Mahfoudi, F., & Louail, B. (2023). Determinants of Foreign Direct Investment in Algerian Country during the Period 1990-2017. Zagreb International Review of Economics & Business, 26(1), 185–196. https://doi.org/https://doi.org/10.2478/zireb-2023-0009

Marriott, N., Telford, B., Davies, M., & Evans, J. (2011). Students' Perceptions of Work-Based Training and Examination-Based Learning Relating to the Professional Competence of Auditors and the Impact of Regulatory Changes on Audit Training in the UK. Accounting Education: an international journal, 20(2), 133-151. https://doi.org/10.1080/09639284.2011.557488

Murphy, B. (2017). Professional competence and continuing professional development in accounting: professional practice vs. non-practice. Accounting Education, 26(5-6), 482-500. https://doi.org/10.1080/09639284.2016.1218780

Needles, B. E., Cascini, K., Krylova, T., & Moustafa, M. (2001). Strategy for implementation of IFAC international education guideline No. 9: "Prequalification education, tests of professional competence and practical experience of professional accountants": A task force report of the International Association for Accounting Education and Research (IAAER). Journal of International Financial Management and Accounting, 12(3), 317-353. https://doi.org/10.1111/1467-646X.00076

O'Toole, S., & Essex, B. (2012). The adult learner may really be a neglected species. Australian Journal of Adult Learning, 52(1), 183-191.

Parsons, S., Davidowitz, B., & Maughan, P. (2020). Developing professional competence in accounting graduates: An action research study. South African Journal of Accounting Research, 34(2), 161-181. https://doi.org/10.1080/10291954.2020.1727080

Pratama, A. (2015). Bridging the gap between academicians and practitioners on accountant competencies: an analysis of international education standards (IES) implementation on Indonesia's accounting education. Procedia-Social and Behavioral Sciences, 211, 19-26. https://doi.org/10.1016/j.sbspro.2015.11.004

Tan, L. M., & Laswad, F. (2018). Professional skills required of accountants: what do job advertisements tell us? Accounting Education, 27(4), 403–432. https://doi.org/10.1080/09639284.2018.1490189

Tavares, M. C., Azevedo, G., Marques, R. P., & Bastos, M. A. (2023). Challenges of education in the accounting profession in the Era 5.0: A systematic review. Cogent Business & Management, 10(2), 1–30. https://doi.org/10.1080/23311975.2023.2220198