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Accounting Education in Algeria: The Road to IAES

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Abstract:

This research paper aimed to study the accounting education and scientific research reality in Algeria under the international accounting education standards. On this basis, a field study of (05) universities was selected. After a random selection of the sample, (58) questionnaires were distributed to accounting professors at these universities and the data was analyzed using the Statistical Package Analysis for Social Sciences program. The study concluded that many shortcomings must be reviewed in the future to meet with the international accounting education standards and the Algerian economic needs.

Keywords: Accounting Scientific Research; Finance; International Accounting Standards; International Accounting Educational Standard; Accounting Education.

JEL Classification: F65, G39, M41.

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Introduction

The emergence of international accounting standards and financial reporting standards is one of the manifestations of accounting globalization that made most countries search for this unified accounting language with the aim of providing financial information characterized by honesty and transparency. Considering that accounting is an organized process consisting of several stages, it was necessary for accounting professionals to be able to master the basics of this profession. Here, the role of accounting education can be found in preparing accountants to be efficient and able to solve accounting problems in a smart way, as well as their ability to develop their skills continuously. In this regard, international efforts paid off by preparing international accounting education standards.

So, the question in this research paper is related with Algeria's relationship to this global equation, which arises the following problem:

Does accounting education in Algeria comply with the international accounting education standards and the Algerian economic needs?

Starting from this research problem, the researchers aroused these important secondary questions as follows:

- Does the academic accounting education in Algeria ensure the accounting profession requirements?
- Is the professional accounting education able to meet the needs of the Algerian enterprises?

In order to answer the problem of the study, The Main null and alternative hypotheses are formulated as follows:

The Main Hypothesis

- (H₀): The Accounting Education in Algeria doesn't comply with the IAES rules and the Algerian economic needs.
- (H_1) : The Accounting Education in Algeria complies with the IAES rules and the Algerian economic needs.

The Minor Hypotheses

Thus, the Secondary alternative hypotheses are formulated as follows:

- (H_{10}) : The academic accounting education doesn't ensure the accounting profession needs;
- (H₁₁): The academic accounting education ensures the accounting profession needs;
- (H_{20}) : The professional accounting education can't meet the needs of the Algerian economy as well as the Algerian enterprise;
- (H_{21}) : The professional accounting education can meet the needs of the Algerian economy as well as the Algerian enterprise.

The present study aims at identifying and clarifying some of the points as follows:

- Having an idea about the accounting education in Algeria and its reality;
- Learning more about the accounting education requirements for practicing the profession of the accountant;
- Trying to find out the accounting education challenges that effects the Algerian enterprises.

1- Theoretical Framework

1-1- An Overview on Accounting Scientific Research

Accounting scientific research examines how accounting is used by individuals, organizations and government as well as the consequences that these practices have. Starting from the assumption that accounting both measures and makes visible certain economic events, accounting research has studied the roles of accounting in organizations and society and the consequences that these practices have for individuals, organizations, governments and capital markets. It encompasses a broad range of topics including financial accounting research, management accounting research, auditing research, capital market research, accountability research, social responsibility research and taxation research.

It addresses all aspects of the accounting field using the scientific method, while research by practicing accountants focuses on solving problems for a client or group of clients.

The research conducted by practicing accountants is also intended to determine the appropriate way for an organization to report transactions in its financial statements and tax returns. Accounting scientific research is also a part of the process of reviewing and auditing the firm's financial information to convert the data into insights on complex financial issues that help companies choose the best course of action.

1-1-1 Accounting Scientific Publishing

Scientific Publishing by researchers in the field of Accounting has some peculiarities, so that researchers publish their scientific work to enrich scientific research, to obtain scientific degrees by university professors, newly Ph.D. Graduated, or Doctoral Students to meet conditions for deliberating their work.

Therefore, the Ministry of Higher Education and Scientific Research has established an Electronic Platform for scientific publishing to protect authors from fictitious and predatory journals which called: Algerian Scientific Journal Platform "ASJP". Researchers also can publish their scientific productions in any scientific journal abroad. This platform signifies the mediator between authors and scientific publishers and provides a measure of transparency and security in publishing scientific works.

Scientific publishing through the platform is also available to Algerian and non-Algerian researchers, free of charge, and the journals listed on the platform are subject to several conditions for inclusion on the platform, such as belonging to a research laboratory approved by the ministry.

Professor Laadjal Adala from University of Mostaghanem and STRATEV Scientific laboratory director, and the current economics faculty dean made a great proposal that would improve scientific research by creating a Platform for Scientific Research that brings all Arab Region Scientific Journals together.

Ministry of Higher Education and Scientific Research has classified scientific journals listed on the ASJP based on international classification standards in order to internationalize and increase the quality of Algerian scientific research. A and A+ Class Journals are the best ratings given to journals and are usually given to journals in technology disciplines (Journals listed in "Science, Nature, and Web of Science" Databases). B Class Journals "Technology and Human Sciences" are also well rated so the Ministry is now requiring researchers to publish in B Class Journals (Journals listed in "Thomson Reuters, Scopus, AERES, ERIH, ABCD, CNRS, Journal Quality List, and Financial Times" Databases) at least in order to obtain a professorship promotion in the session of 2022. Class C is the lowest classification approved by the Ministry of Higher Education. Non-Classified Journals are not yet categorized by the Ministry for some reasons, which may be the lack of respect for the classification conditions by the editorial committees. Even though, publishing in non-classified journals still counted as additional scientific research and counted in many occasions like "Recruitment, promotion, and deliberation".

For Impact Factor "IF" (Nobel Prize, 2020), Publishing in journals with a higher Impact Factor "Index" helps to introduce researchers and their work around the world. It is why researchers often try to publish in high-status scientific journals with a high impact factor so their work would be noticed and recognized. Although the impact factor is one of the good classifications in scientific research. The Impact Factor was not intended to create this competition to publish in these high-listed journals, it was about helping researchers to identify scientific journals related to their disciplines and which journal to follow. And this opens the doors to mention that the primary goal of the researcher is to produce good quality scientific research.

Algerian platform contains 716 Scientific Journals in 28 disciplines (Last time checked on March 6^{th} , 2022), of which 205 journals accept publication in accounting field as follows:

Table N° (01): Accounting Research Publishing Journals in Algeria

Accounting Publishing Journals in ASJP				
Journals Listed in ASJP	716	100%		
Accounting Journals	205	28,63%		
A, or A+ Class Journals	00	00%		
B Class Journals	05	6,98%		
C Class Journals	114	15,92%		
Unclassified Journals	86	12.01%		

Source: By the researchers based on (ASJP, 2021).

The list of the 15 best Algerian scientific journals published in the field of accounting is presented according to the impact factor as follows:

Table N° (02): Top 15 Algerian Accounting Publishing Reviews by Impact Factor

Order	ASJP	Journal's	Impact	Class
	Ranking	Name & ISSN	Factor	
1	02	Journal of Financial, Accounting and Managerial Studies ISSN: 2352-9962	1.55	В
2	03	El-Bahith Review ISSN: 1112-3613	1.20	С
3	03	Roa Iktissadia Review	1.08	C
3	04	ISSN: 2710-8511	1.00	C
4	06	The Journal of Economic Growth and Entrepreneurship ISSN: 2710-8511	0.84	С
5	08	The Algerian Business Performance Review ISSN: 2170-1938	0.76	С
6	09	The Algerian Journal of Globalization and Economic Policies ISSN: 2335-1268	0.75	С
7	10	The Journal of Economics and Finance ISSN: 2437-0630	0.71	С
8	11	Finance and Markets Journal ISSN: 2392-5124	0.70	С
9	12	Algerian Review of Economic Development ISSN: 2392-5302	0.64	C
10	13	Finance and Business Economies Review ISSN: 2543-3784	0.64	C
11	15	Journal of Economics and Management ISSN: 1112-3443	0.61	C
12	16	North African Economics Review ISSN: 1112-6132	0.61	В
13	17	Milev journal of research & studies ISSN: 2392-5361	0.59	С
14	18	Journal of Economic and Financial Research ISSN: 2352-9822	0.57	С
15	19	The Journal of Business Administration and Economic Studies ISSN: 2437-0525	0.57	С

Source: By the Researchers based on (ASJP, 2021).

As for the international publishing, here are the best 15 Accounting publishing scientific journals according to the impact factor as follows:

Table N° (03): Top 15 World's Accounting Publishing Reviews by Impact Factor

Order	SJR	Journal's	Impact	Country
		Name	Factor	
1	18.151	Journal of Finance	7.01	UK
2	11.673	Journal of Financial Economics	6.88	Netherlands
3	12.800	Review of Financial Studies	6.23	UK
4	1.768	Journal of Technology Transfer	5.69	USA
5	0.897	International Journal of Accounting	5.56	USA
		Information Systems		
6	6.607	Journal of Accounting and	5.38	Netherlands
		Economics		
7	1.223	British Accounting Review	5.16	USA
8	1.143	Journal of Accounting Literature	4.59	UK
9	2.027	Work, Employment and Society	4.57	UK
10	6.767	Journal of Accounting Research	4.30	UK
11	1.741	Accounting, Auditing and	3.88	UK
		Accountability Journal		
12	5.678	Accounting Review	3.88	USA
13	2.617	Accounting, Organizations and	3.85	UK
		Society		
14	4.933	Review of Finance	3.77	UK
15	1.980	Mathematical Finance	3.59	UK

Source: By the Researchers based on (SJR, 2021).

Scimago Journal Ranking Indicator "SJR" is a measure of journal's impact, Influence, or prestige. It expresses the average number of weighted citations received a selected year by the documents published in the journal in the three previous years.

1-1-2 Problems Facing Accounting Researchers in Algeria

Although, there are more than 700 Algerian scientific journals, and more than a quarter of these journals publish researches related to accounting. But these journals' impact factor remains at less rate compared to international journals. Therefore, the researcher will try to present some of the problems facing researchers whether in the field of accounting or other fields, as follows:

Companies' Reservations: Unfortunately, when it comes to providing data, the Algerian researcher has witnessed at least once the culture of not providing information about what is he studying. Sometimes, they deliberately provide false and incorrect data about the enterprise which affects the researcher's Study Quality as a result;

- ❖ The Legal Relationship with Accounting Science: the particularity of the accounting field makes it sometimes very complicated to deal with. Accounting is linked with laws and legislations directly, and this made the Algerian researchers face some difficulties in order to get the information they need. The sample reaction seems always to set an image that these laws and legislations that regulate some procedures are fully respected even if they don't, which needs for the researcher to be clever to investigate the correct information that serves the research so he can prepare high-quality studies;
- **Language Issues:** when it comes to publishing in international journals, many researchers face the problem of humble control over the English language which is the language of scientific research. Foreign Researchers on the other hand have a great desire to cooperate with researchers in Algeria to prepare research papers. Because they consider Algeria and many other countries as a raw scientific environment that has not yet been covered. Despite this, the main problem remains the lack control of communication caused by language differences, whether by foreign researchers "the Arabic language", or the Algerian researchers when using the English language. Also, preparing Arabic papers means that it's directed primarily to Arabic language speakers, and this is one of the main problems that do not serve the spread of these studies around the world and may not help reach the added value that Arab researchers may provide to the rest of the world. However, recently, the Ministry of Higher Education and Scientific Research has become interested in publishing and preparing scientific papers in English;
- ❖ International Publishing Issues: Accounting Researchers face several problems when attempting to publish in international high-quality journals due to the strict imposed conditions by these scientific journals, or because of the lack control of the English language as mentioned earlier. Besides, many journals require fees to review articles submitted to the reviewing committee which are often valued between \$100 to over \$2,500 for journals that have an average impact factor. These amounts are considered as huge sums and they may equal the income of some Algerian employees for a full year. This problem would limit the researcher's determination to publish his work in prestigious international journals, especially with no entity to cover these fees at all. But many ambitious Algerian researchers seek to search for free journals or journals with low-priced fees to publish their work.

1-2 Accounting Education

1-2-1 Academic Accounting Education

Accounting Education in universities coincided with the accounting reform process in Algeria. As soon as the Financial Accounting System was implemented in 2010, Economic faculties in several Universities rushed to change their Accounting Educational Programs to comply with the new accounting rules represented in Financial Accounting which is a positive accomplishment for the Algerian university. University of Algiers 3, the Higher School of Accounting and Finance in Constantine, and the University of Chlef were with many first universities to realize this transformation in such a short period. It was lucky for the researchers to personally witness this transformation.

On the other hand, accounting education in the Algerian university was based on only 13 classes per semester which mean around 42 Hours in 12 weeks. But in France, there is no way to compare with 190 hours a semester. Accounting is the basic course for an MBA degree which is considered as one of the toughest studies in the world, and this field always attracts excellent students unlike Algeria. Because joining the Faculty of Economics in Algeria is not based on strict conditions.

Many prestigious universities, such as (Oxford Royal Academy, 2021), Stanford and Washington University agree that economics is one of the most difficult disciplines, and the joining fees for this discipline is very expensive as well. For example, Harvard Business School provides online courses about Finance and Accounting in an 8 weeks period, corresponding to 171 hours for \$6,400. Which is far away from what the Algerian University offers in real classes and for free which may raise the problem of the quality of education.

Since 2004, the Bachelor-Master-PhD educational system known as "LMD" motivates the students to be more serious and hardworking about their studies, but according to a study conducted by (Zerraki A, 2017), Algerians reads only "two minutes per a year" and half of the Algerian people don't read at all which makes the situation even worse.

As for the companies' accountants, chaos appeared in the early years of the application of the FAS. Because they were not familiar with what the FAS came with, and many companies at that time tried to promote their accountants skills through medium and short-term educational courses abroad to be able to master IAS/IFRS rules. As well as through educational courses about the Financial Accounting System in Algeria for a period "that often exceeded a year".

The increasing demand on such Educational Programs made registration fees go high ranging between \$2,000 and \$6,000 per participant and these amounts were imposed by many Accounting Educators in Algeria.

Sadly, one of the most important problems facing Academic Education in the Algerian University is that students are not educated with the professional basics of accounting and they are not well accompanied by economic enterprises when preparing their graduation reports.

1-2-2 Professional Accounting Education

The severe lack in the number of accounting professionals in Algeria would generate the desire to open the doors of training in this field in order to obtain professional accounting certificate to try to provide the Algerian market needs and meet the desires of the Algerian enterprises that are active in the national economic environment. But what happened after the implementation of the accounting reform process is the exact opposite. As soon as (Act N°11-07, 2007) and (Act N° 10-01, 2010) were issued, the rules for obtaining an accountant's certificate were changed. After two years, authorities announced the establishment of a Specialized Training Institute for the Accountant Profession by (Executive Decree N° 12-288, 2012) under the authority of the Ministry of Finance. And the conditions for admission to the institute and the certificates involved in participating in the competition have also been published in the Algerian Official Journal N° 45/2017 by a Joint Ministerial Decision between the Minister of Finance and the Minister of Higher Education and Scientific Research. However, the Institute hasn't been established and the contest hasn't been organized what so ever.

Accounting Professional Contest Rules Reform 2007 2010 2012 2017 2022 Specialized Accounting Accounting First Reform Application Institute Establishment

Figure N° (01): The Specialized Professional Accounting Institute Timeline

Source: By the Researchers based on the Algerian Official Journal

Based on **Figure Number (01)** that shows the sequence of issuing the laws related to Professional Accounting Learning, it's important to note that authorities neglected to adopt a clear strategy to transfer to the supervision of the Accounting Learning of professionals under the supervision of the Ministry of Finance, and that there are no justifications for the delay and the preparation of this institute and the launch of the training process in the field of accounting.

1-3 International Accounting Education Standards

International Accounting Education Standards are general guidelines and models that provide directions for achieving optimal Accounting Education, IAES help countries and various bodies to ensure good accounting qualifications in order to achieve the public interest and improve the quality of accounting services provided by these professionals. The preparation and issuance of these international standards for accounting education was carried out by the International Accounting Education Standards Board "IAESB" which is a specialized Board under the authority of the International Federation of Accountants "IFAC" in New York. The International Accounting Education Standards Board is an independent body dedicated to follow up all developments that occur in the field of accounting education.

Eight "08" International Accounting Education Standards (IAESB, 2008) have been progressively issued by the IAESB and have been amended whenever the opportunity allowed so. But in October 2019, IFAC adopted a new strategy to upgrade Accounting Education and canceled the mission of IAESB permanently and shut the Board down. However, IAES are presented in the table as the following:

Table N° (04): IAES Presentation

	national Accounting	Continent		
Educa	tion Standards Name			
IES 01	Entry Requirements to a Program of Professional Accounting Education	This Education Standard deals with the requirements for admission to the accounting education program in detail and focuses on the requirements, especially the professional ones, to join the accounting education program, as well as the qualifications that the candidates must have.		
IES 02	Content of Professional Accounting Education Programs	This Education Standard deals with the knowledge content of the accounting education program to be taught to accounting students.		
IES 03	Professional Skills	This education standard deals with the skills that must be included in the educational program so that students in the future can employ these skills when dealing with the daily problems they face in the field of accounting.		

IES 04	Professional Values Ethics and Attitudes	This education standard deals with the professional ethics that must be available in the educational program and which must be taught to students with all seriousness so that students can acquire the moral values and attitudes that they need to practice the accounting profession.
IES 05	Practical Experience Requirements	This education standard deals with the guidelines that must be provided in the educational programs so that students can practice their work in a professional spirit after their graduation.
IES 06	Assessment of Professional Capabilities and Competence	This Accounting education standard deals with the mechanisms that must be available in educational programs through which the professional competence of students is assessed in a way that allows ensuring their ability to implement the daily accounting requirements.
IES 07	Continuing Professional Development: A Program of Lifelong Learning and Continuing Development of Professional Competence	This accounting education standard aims to provide the necessary guidance to enable those who practice the profession of accountancy to develop themselves continuously.
IES 08	Competence Requirements for Audit Professionals	This accounting education standard aims to define professional competence in terms of the obligation of those responsible for auditing the financial statements to develop and maintain their competence while performing their duties.

Source: By the Researchers based on (IAESB, 2008).

Despite the different methods of accounting education among countries, the International Federation of Accountants recommended 11 "Academic and Professional" Methods of education for accounting teachers to ensure the efficiency in educating students as follows:

- The use of case studies in accounting education;
- work in groups;
- Continuous improvement in educational programs;
- Develop programs that encourage self-learning among students;
- Motivating students to participate in the educational process;
- Relying on specific methods to measure the knowledge, skills, values and principles required by the accounting profession;
- Ability to integrate knowledge and skills;
- The ability to identify existing problems and ways to solve them;
- Discover research results;
- Motivating students to develop their professional skepticism and opinions;

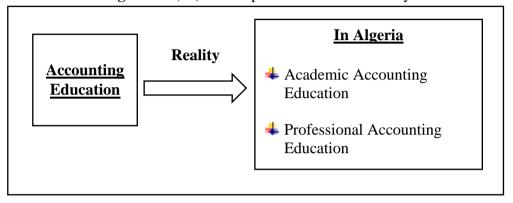
- The use of technology and electronic accounting education "E-Learning".

2- Methodology

2-1 Research Model of the Study

Based on the literature review on the accounting education in Algeria and the international accounting education standards, the study model is shown in **Figure Number (02)**.

Figure N° (02): Conceptual Model of the Study



Source: By the Researchers based on (IFAC, 2021).

2-2 Sample and Data Collection

In order to study the reality of the accounting education in Algeria under the international accounting education standards, the researchers relied on the following:

- **2-2-1 Questionnaire:** To empirically investigate the reality of the accounting education in Algeria under the international accounting education standards, (58) accounting professors were selected as a sample to reach the objectives of the study. Therefore, a questionnaire submitted to accounting professors affiliated in the Finance and Accounting Department across (05) universities as the following: "University of Sidi Bel Abbess, University Center of Ain Temouchent, University of Saida, University of Mascara and University Center of El Bayadh".
- **2-2-2 Measuring of Variables:** This section describes the variables used for measuring the reality of the accounting education in Algeria under the international accounting education standards through to axes as follows:
- Academic Accounting Education: This scale was based on (IFAC, 2021) multiple items (Five-point Likert-type scales) were used for measuring efficacy determinants of accounting education.
- **Professional Accounting Education:** This scale was based on (IFAC, 2021) multiple items (Five-point Likert-type scales) were used for measuring efficacy determinants of accounting education.

- **2-3 Statistical Tools:** The following statistical tools have been used in order to answer the questions of the study:
- **2-3-1 Descriptive Statistic Measures:** By using averages and deviations to precise the proportional significance of the sample individuals and response towards the axes and the dimensions of the study;
- **2-3-2 Reliability Test**: To precise the degree of reliability of the study tools; **2-3-3 One Sample T Test:** To precise the degree of Accounting Education in Algeria (Good, Bad, Medium) because the study consisted only one variable.
- **2-3-4- Simple Linear Regression:** By using a simple regression coefficient to measure the relationship between the axes of the study.

3- Results and Discussion

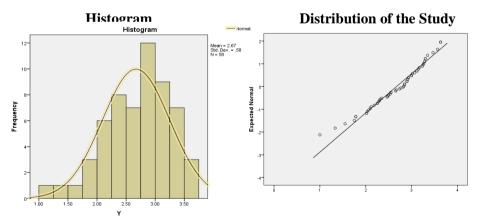
3-1 Test of Normality

Since the sample of the study is larger than 30 participants the Kolmogorov-Smirnov test is used to decide if a sample comes from a population with a specific distribution. The researchers used this test to see if the distribution of the answers is normal to determine what tests should he use next "Parametric or Non-Parametric Tests". So, the results are shown in **Table Number (05)** as the following:

Table N° (05): Test of Normality

Kolmogorov-Smirnov Test	Z Value	Significance
Accounting Education	0.116	0.510
in Algeria		

<u>Source</u>: Realized by the researchers on the basis of the SPSS results. **Figure N° (03):** Histogram and Distribution of the Study



Source: Realized by the researchers on the basis of the SPSS results.

According to **Table Number (05)** and **Figure Number (03)**, it is clear that the significance level of accounting education is higher than the significance value (α >0.05) which means that the distribution is **Normal**.

3-2 The Reliability Test

The Cronbach Alpha Coefficient is used in order test the reliability of the study tools. As long as the Cronbach alfa value is more than (0.60), it means that the results obtained are reliable and suitable for measuring the variables of the study.

Table N° (06): The Reliability Test of the Study

Order	The Accounting Education Dimensions	Cronbach Alfa Coefficient
01	Academic Accounting Education	0.713
02	Professional Accounting Education	0.735
	Total Reliability Of The Study	0.819

Source: Realized by the researchers on the basis of the SPSS results (*sig $\alpha < 0.05$)

Table Number (06) indicates that the Total Reliability of the Study is **0.819** "more than (0.60)" which refers that the results obtained are reliable and suitable according to (Cronbach, 1951).

3-3 Accounting Education Dimensions

Table Number (07) shows that the Accounting Education in Algeria was average from the point of view of the sample of the study. Its arithmetical average reaches (2.67). There's also a difference in the existence of each dimension of accounting education. The highest is the Academic Accounting Education with a high degree and arithmetical average of (2.75) and a standard deviation of (0.65). The Professional Accounting Education came last with a medium degree and an arithmetical average of (3.59) and a standard deviation of (0.57).

These results reflect that the sample of the study is more interested in Academic Accounting Education.

Table N° (07): Accounting Education Dimensions

Order	The Accounting Education Dimensions	Arithmetical Averages	Standard Deviations	Estimation Degree
01	Academic Accounting Education	2.751	0.650	Medium
02	Professional Accounting Education	2.592	0.649	Medium
Total Arithmetical Average		2.671	0.579	Medium

Source: Realized by the researchers on the basis of the SPSS results (*sig α <0.05).

3-3 Testing the Hypotheses

It's essential to test the hypothesis to obtain results and make suggestions that highlight the importance of the present paper as follows:

3-3-1 Testing the Main Hypothesis

Since the study consists of one variable, the One Sample T test is used to estimate the reality of the accounting education in Algeria according to the opinions of the study sample. (Gosset W.S "Student", 1908) Refers to a number of conditions that must be encountered before performing the one sample T test:

- **4** The sample of the study must be larger than 30 participants;
- ♣ The distribution of the study answers must be Normal;
- **♣** The sample of the study must be random;
- **♣** The recovered data should be free of anomalies.

The researchers perform the one sample T-tests in a confidence interval estimated at 95% (α =0.05) and an estimated (T-Value = X) according to the table as the following:

Table N° (08): Testing the Effectiveness Level Using T Value

Order	The Five Point Likert Scale	SPSS Weight	The Effectiveness level	T Value
1	Strongly Agree	5	Very High	5.00- 4.20
2	Agree	4	High	4.19-3.40
3	Neutral	3	Medium	3.39-2.60
4	Disagree	2	Low	2.59-1.80
5	Strongly Disagree	1	Very Low	1.79-1

Source: By the researchers

After testing the hypothesis to determine the level of efficiency of the accounting education in Algeria, the results are shown in the following table:

Table Number (09): The One Sample T test Results

Accounting	Arithmetical Average	Standard Deviation	T Value (Calculated)	T Value (Table)	Sig.
Education	2.671	0.579	3.4	(-9.566)	0.000
			2.6	0.944	.0349
			1.8	11.453	0.000

Source: By the Researcher on the basis of SPSS Results (*sig α <0.05).

Based on the One Sample T Test, and after checking the three T calculated values it can be said that the hypothesis is statistically accepted. But;

- The value (T_{t1} = -9.566< T_{c1} = 3.4) clarifies that the estimation degree of the accounting education between the range of "3.4 and 5.0" is not significant;

- The value (T_{t2} = 0.944, sig. = 0.349>0.05) indicates that the estimation degree of the accounting education between the range of "2.6 and 3.39" is not significant;
- The value (T_{t3} = 11.453, sig. = 0.349>0.05) refers that the estimation degree of the accounting education between the range of "1.8 and 2.59" is significant.

So, we accept the null hypothesis (H_0) and reject the alternative one (H_1) which means that according to sample of the study "the Accounting Education in Algeria doesn't comply with the IAES rules and the Algerian economic needs".

3-3-2 Testing the First Minor Hypothesis

In order to test that the first minor hypothesis, we need to check if the academic accounting education has a statistical significance (α <0.05) on the accounting education. In order to judge whether the hypothesis can be accepted or rejected.

Table Number (10) shows a simple regression analysis of testing the reality of the academic accounting education on the accounting education. The table indicates that the value of the determination coefficient is (R^2 = 0.79) which means that academic accounting education explains (79%) of the difference occurring in the accounting education in Algeria.

Table N° (10): The Results of a Simple Regression Analysis of Testing the AAE

Simple Regression Analysis	(Beta) Value	(t) Value	Sig.
Academic Accounting Education	0.893	14.815	0.000
R ² Value		0.797	

Source: By the Researcher on the basis of SPSS Results (*sig α <0.05)

Since the value (t= 14.815, significance level = 0.000 < 0.05), we reject the null hypothesis (H_{10}) and accept the alternative hypothesis (H_{11}) which means that the academic accounting education ensures the accounting profession needs according to the participants.

3-3-3 Testing the Second Minor Hypothesis

Table Number (11) shows a simple regression analysis of testing the reality of the professional accounting education on the accounting education in Algeria. The table indicates that the value of the determination coefficient is $(R^2=0.79)$ which means that professional accounting education explains (79%) of the difference occurring in the accounting education.

Table N° (11): The Results of a Simple Regression Analysis of Testing the PAE

Simple Regression Analysis	(Beta) Value	(t) Value	Sig.
Professional Accounting Education	.0892	14.779	0.000
R ² Value		.0796	

Source: By the Researcher on the basis of SPSS Results (*sig α <0.05).

Since the value (t= 14.779, significance level = 0.000 < 0.05), we reject the null hypothesis (H₂₀) and accept the alternative hypothesis (H₂₁) which means that the professional accounting education can meet the needs of the Algerian economy as well as the Algerian enterprise according to the sample of the study.

Conclusion

In fact, accounting education in Algeria weather it's academic or professional didn't have the importance it deserve. Because the accounting education in universities still in the same spot for the last 20 years. With the emergence of International Accounting standards and International Financial Reporting Standards IAS/IFRS, it still noticeable that today's students face many difficulties when dealing with these rules and standards. And even the Financial Accounting System isn't that clearer for some professionals. Especially with the absence of many explanations about some accounting writings. So, the researchers are not saying that the accounting education in Algeria can't meet with the IAES requirements. But it will not happen out common efforts of all the parties related with accounting education in Accounting especially; university professors. Professionals " Accounting Experts, Commissioners of accounts, Certified Accountants", Tax Accounting professionals, the companies' Heads of Finance and Accounting departments, etc. Therefore, this study reached many results which we summarize as follows:

- The Accounting Professionals are facing an aging crises;
- There are no requirements for joining the accounting classes in universities which doesn't comply with the IAES rules;
- The Algerian university education is totally free which worsen the problem;
- Lesson hours for accounting are very few compared to other countries.
- The accounting professional education has been suspended for more than 12 years.

The study recommends:

 Establishing a national organization charged with accounting education and constantly updating it with IAES while promoting the principle of consulting all actors in accounting in Algeria;

- Creating for the first time a National Accounting Education Standards;
- Lunching Professional Educational Programs <u>immediately</u> with the collaboration of the Algerian university to prevent the aging crisis of the Professionals;
- Providing the necessary conditions for the accounting environment in Algeria to respond positively to the requirements of the reform education standards.

Bibliography

- Act N° 10-01. (2010). related to the professions of expert accountant, commissioner of accounts "statutory auditor" and certified accountant. *Algerian Official Journal*.
- Act N°11-07. (2007). Act N° 11-07 of November 25th, 2007. Algerian Official Journal, (74), 3-6.
- ASJP. (2021). ASJP. Retrieved from ASJP: www.asjp.cerist.dz
- Cronbach. (1951). Coefficient alpha and the internal structure of tests. *psychometrika*, 16(03), 297-334.
- Executive Decree N° 12-288. (2012). related to the establishment of a Specialized Training Institute for the Accountant Profession. *Algerian Official Journal*.
- Gosset W.S "Student" . (1908). The probable error of a mean. *Biometrika*, 06(01), 1-25. doi:https://doi.org/10.2307/2331554
- IAESB. (2008). International Accounting Education Standards 1-8. New York: IFAC. Retrieved 11 27, 2021, from IFAC: https://www.icjce.es/images/pdfs/tecnica2/normativainternacional/ies1_a_8.pdf
- IFAC. (2021). IFAC. Retrieved from IFAC: https://www.ifac.org
- Nobel Prize. (2020). *The dominance of impact factors*. Retrieved from Nobel Prize: https://www.nobelprize.org/impact-factors/
- Oxford Royal Academy. (2021). *15 Hardest Degree Subjects*. Oxford. Retrieved from Oxford: https://www.oxford-royale.com/articles/hardest-degree-subjects/
- Zerraki A. (2017). Readability in the Arab Region. *With reading We rise*, (pp. 01-21). Nabuls, Palestine. Retrieved from: