

Research Article

The Impact of International Education Standards and Continuing Professional Development on Competency Development and ESG Reporting

Brisejda Zenuni Ramaj* , Mirela Miti 

Department of Accounting, University of Tirana, Tirana, Albania

*brisejdaramaj@feut.edu.al

Abstract

This paper discusses the impact of the implementation of International Education Standards (IES) and Continued Professional Development CPD in professional accounting education on the development of competencies and readiness for sustainability reporting according revisited IES in accounting and auditing in Albania. The study is designed as a quantitative study to explore the relation between implementation of IES (IES 2-7), professional accounting education, continuing professional development (CPD), work experience, professional competencies, and ESG reporting. The data analyzed in this study were collected by distributing questionnaires among 119 accounting and auditing professionals. The analysis was carried out through Pearson correlation, linear regression, multiple regression and analysis of variance (ANOVA) to test the hypotheses raised. The results of the paper show a strong and statistically significant relationship between the implementation of IES and professional development ($r=0.890$, $p<0.001$). Continuing accounting education has a significant impact on the formation of professional competencies ($R^2 = 0.638$, $p < 0.001$). Work experience does not significantly affect perceptions of the implementation of the updated IES. Regarding sustainability reporting, the results show that the components of IES have a low explanatory power. Professional skills (IES 3) play a primary role in the development of competencies, but their impact plays a minor role. This implies that technical knowledge, ethics, and Continuing Professional Development (CPD) are not sufficient to explain the readiness for sustainability reporting. The study shows the existence of a considerable gap between accounting education and sustainability reporting requirements. This underlines the necessity of heading towards curricula based on practical, interdisciplinary and skills-based elements, incorporating ESG concepts. The empirical results add value to the existing literature on accounting education and professional competencies development in our country, a developing country in continuous change and global challenges. Data analysis includes an assessment of reliability and stakeholder suitability, using indicators such as Cronbach's α , Kaiser-Meyer-Olkin (KMO) test, Barlett's test and Chi-Squared, which provide a solid basis for the construction and interpretation of the SEM model.

Keywords: International Education Standards; Accounting Education; Professional Competencies; Sustainability Reporting; ESG; Developing Economies.

INTRODUCTION

The development of professional competencies in accounting and auditing has become more complex in response to ongoing changes in the economy, technology and legal regulation. The impact of increasing digitalization, data analysis and sustainability reporting has significantly influenced the development of competencies benefiting accounting professionals by expanding and integrating skills and knowledge beyond traditional technical knowledge [1-5].

In this regard, the International Education Standards (IES) [1] developed by the International Federation of Accountants (IFAC), provides a globally accepted framework for the education and development of accounting professionals [2]. The standards describe the knowledge, skills, values, and professional attitudes needed to enter and advance in the profession and aim to ensure consistency and quality across different national settings [3]. Nowadays, reporting is not only about financial information, but also about environmental, social, and governance (ESG) dimensions, which requires a broader and interdisciplinary competency profile [4, 5]. Especially, IES 2–7 is concerned with important areas of competence development, including technical competence, professional skills, ethics, practical experience, and continuing professional development (CPD) [6].

The importance of Environmental, Social, and Governance (ESG) practices is increasing recognition, but the literature has produced mixed findings concerning the direct impact of these practices on sustainability readiness. A lot of the studies assume that the exposure of professionals to ESG concepts will automatically lead to an increase in their sustainability readiness [7-13]. This assumption is a gross oversimplification of the complexity of the mechanism for developing skills, competencies, and sustainability reporting, especially in developing economies, where institutional structures, ESG education, and professional training systems are still in a state of constant flux. The sustainability readiness of professional education systems, here, may depend not only on their awareness of ESG issues but also on their capacity development and institutional conditions. Therefore, IES alone may not be sufficient to explain sustainability readiness outcomes. This study aims to address this gap and examine sustainability readiness in the Albanian context, where the integration of ESG and sustainability-oriented professional education is still in its infancy. Therefore, understanding the role of professional education frameworks in contributing to sustainability readiness is an important, but under-researched issue in accounting research.

The implementation of the International Education Standards (IES) is particularly important for Albania, as a country aspiring for EU membership [14-19]. The regulation of the accounting profession through the International Education Standards is a request of the IFAC for member countries and a condition for countries acceding to become members of the EU (8th Directive). The IES also specifies the technical competencies, professional skills, and values, ethics, and attitudes that accounting professionals need to possess. These skills are gained through Initial Professional Development (IPD), Continuing Professional Development (CPD), and formal assessment processes [20-26]. The IFAC

describes the standard of competence which a professional accountant should have in the practice of the profession as: Professional Competence, Initial Professional Development (IPD), Continuing Professional Development (CPD), and Assessment of acquired knowledge.

The IES framework has been developed and updated on an ongoing basis, but the literature suggests that its implementation is often more formal than substantive and practical. Accounting education degree programs are built on academic and technical knowledge, but the labor market and employers require the development of professional judgment, critical thinking, communication, problem-solving, and adaptability [3]. The gap between educational results and labor market expectations underlines the need for sustainability reporting based on ESG standards [27-29]. The practice of contemporary accounting includes sustainability reporting on environmental, social, and governance (ESG) issues [7]. It requires an interdisciplinary approach combining financial expertise and its impact on the environment and society [24].

The competencies and their relation with sustainability are yet to be fully integrated in the accounting curricula, constraining the readiness of accounting professionals to respond to market needs in the development of sustainable reporting [25]. In developing countries, there are challenges, and this is also reflected in the adaptation of accounting curricula with IES to meet labor market requirements. In the context of Albania, existing studies highlight gaps in the implementation of IES, the limited integration of sustainability reporting, and the need for more practice-oriented and competency-based education [17, 22].

Although previous studies have explored the role of accounting education, professional competencies, and sustainability reporting, several important gaps are not sufficiently addressed. First, the existing literature is largely concentrated on developed economies, while evidence from emerging economies is scarce, especially in the Western Balkan context. Second, in many studies, awareness of ESG and sustainability reporting is studied independently without sufficient investigation of the impact of professional competencies on sustainability readiness. Third, the role of International Education Standards (IES) in preparing accounting professionals for sustainability-oriented reporting practices has received relatively limited attention. Consequently, the linkages between professional education frameworks, competency development, and sustainability readiness are under-theorized and empirically underexplored, particularly in transitional and institutionally developing contexts such as Albania.

Within this context, this paper aims to investigate the effect of International Education Standards and professional accounting education on the development of professional competences and the perception of preparedness for sustainability reporting in Albania. The study integrates theoretical insights and empirical evidence from accounting and auditing professionals and adds to the growing literature on sustainability readiness by showing that readiness for sustainability reporting may not only be about ESG awareness, but also about competency development and institutional conditions. There are practical applications in the design of university curricula, IES practices are applied and in

continuous professional development, including training, they are carried out according to IES and their requirements [8, 9].

RESEARCH GAPS

Existing literature on accounting education has not sufficiently studied the implementation of the International Education Standards (IES) and the updated IES. There are several important issues, especially in the context of developing countries. Although the literature highlights the role of IES in the development of professional competencies, empirical evidence on their actual effects is still limited. The latest literature is largely conceptual or descriptive, with few studies quantitatively examining the impact of IES implementation on competency development in practice [26, 30]. First, this limitation is especially significant in developing countries, where institutional and educational environments are different from those in developed economies. Second, although sustainability reporting is now an important aspect of contemporary accounting practice, its inclusion in accounting education is still fragmented and often superficial. Previous studies have shown that ESG-related content education tends to be theoretical and does not sufficiently provide practical application or interdisciplinary learning [25, 29].

There is little empirical evidence on the impact of accounting education and ESG-related competencies on preparing professionals for sustainability reporting. Third, it is unclear how important the different components of competencies are in relation to each other, such as technical knowledge, professional skills, ethics, and continuing professional development (CPD). The ESG framework supports an integrated approach. Empirical results are still unclear regarding which dimensions are most important for addressing emerging professional demands, particularly in the context of sustainability reporting [6].

Fourth, the effect of professional experience on the perceptions of IES implementation and competence development has been little investigated. Studies indicate that experience is a factor in professional growth, but experience alone may not be sufficient without continuous IES education, IPD, and CPD continuing training [26]. This indicates a need for more empirical research. Finally, there is a general lack of empirical research relevant to the Albanian context. Existing studies describe and do not analyze systematically the relation between IES implementation, accounting education, professional competencies and sustainability reporting in the public and private universities that implement IES in accounting [17, 22]. This creates an important gap in the literature, particularly with current efforts to bring national educational systems into line with international standards and evolving global demands [10, 11].

The present study intends to close these research gaps by offering a comprehensive empirical analysis of the correlation between International Education Standards, professional accounting education and competency development with a special focus on sustainability reporting preparation in Albania. The present study contributes to the literature by extending the descriptive approaches and providing evidence-based insights

through the application of quantitative methods from the perspective of a developing economy.

LITERATURE REVIEW

The accounting literature has mostly studied the implementation of International Education Standards (IES) in aiming to improve the quality, comparability, and global harmonization of the accounting profession. Structured learning outcomes in technical knowledge, professional skills, and ethics are the means by which standardization is achieved in the IES framework. These standards aim to provide a common framework for the development of professional competencies across countries, with the possibility of adaptation to national institutional, cultural and regulatory contexts (International Federation of Accountants [2, 15]. Education in the field of accounting is very important for the development of competencies of accounting professionals and for the overall development of the profession. Globalization of accounting requires more standardized educational frameworks that integrate academic preparation with professional requirements. In this sense, the IES framework guides the development of the technical competence, professional skills and ethical values required of professional accountants [2]. The Global Accounting Development Institute (GADI) was created at Tilburg University in the Netherlands in 1999 to disseminate information on the education of accountants and auditors worldwide.

The IES framework is based on a competency model and includes multiple dimensions of professional development. IES 2, 3, and 4 specifically address professional competence, professional skills, and ethics, respectively, and IES 5-7 address practical experience, assessment, and continuing professional development (CPD). This integrated structure acknowledges that professional competence is not only knowledge, but the application of professional skills and judgement in complex settings [2, 3].

Empirical studies indicate that competency-based educational frameworks improve professional performance. Graduates from structured and internationally oriented accounting programs are generally better at analytical skills, better at communication skills and better at adapting to changing professional environments [3]. Also, literature mentions the fact, that technical knowledge alone is not sufficient and it is necessary to develop broader professional skills. The accounting profession has been radically transformed in recent years by digitalization, automation and the increased use of data analytics.

Developments have broadened the skill set expected of accounting professionals, highlighting the importance of digital literacy, critical thinking and problem-solving skills. Consequently, accounting education has to change to incorporate these competencies to stay relevant. Another significant development in the field is the increasing importance of sustainability reporting. The importance of accountants has increased considerably with the incorporation of environmental, social and governance (ESG) factors in corporate reporting. This change demands that professionals acquire interdisciplinary knowledge that combines accounting knowledge with knowledge of sustainability issues [6]. The

growing importance of sustainability reporting is not reflected in the integration of the topic in accounting education, which is repeatedly emphasized in the literature. Topics of sustainability are frequently presented in a fragmented way and are not put into practice, limiting the graduates' ability to apply the knowledge related to ESG in professional contexts [13].

One of the ongoing issues in the literature is the mismatch between accounting education and the expectations of the labor market. Employers are increasingly seeking transferable skills such as communication, teamwork, critical thinking and adaptability. Many accounting programs still tend to focus on technical knowledge, creating a gap between the capabilities of graduates and professional requirements.

The quality of Professional education and structure are closely related to professional development in accounting and auditing. To achieve so, the International Federation of Accountants (IFAC) has developed a complete framework called the International Education Standards (IES) to unify and standardize the education and training of accounting professionals around the world [29]. IES 2–7 covers key elements of professional development, including technical competencies, professional skills, ethics, practical experience and continuing professional development (CPD), and provides a broad and cyclical perspective on learning and continuous improvement.

Continuing professional development is widely regarded as one of the key mechanisms for continuous development and improvement of professional competence during the whole career of a person. CPD is described in the IES framework as a continuous learning process that is needed to meet the demands of a changing profession. But the value of CPD is dependent on the quality of training programs and the institutional setting in which they are offered [2].

For the developing economies, the adoption of international standards and the development of professional competencies are generally much more difficult. However, institutional limitations, scarce resources, and slower adoption of reforms can limit the implementation of IES and the modernization of accounting education systems. [15]. The role of CPD in strengthening the connection between Initial Professional Education (IPD) and Continuing Professional Development (CPD) is important. Research suggests that work experience may not always be enough without a solid educational and continuing education [14]. More recently, the importance of integrating digital competencies, data analytics and sustainability reporting within the IES framework has been stressed, indicating the evolution of the accounting profession. Professional education involves not only the acquisition of technical knowledge, but also the development of professional skills, ethics and professional judgment [16]. Recognizing the importance of structured and continuous education, the IES also has an integrated competency framework including technical competencies (IES 2), professional skills (IES 3) and values, ethics and professional attitudes (IES 4). Nonetheless, empirical research on accounting education and the development of professional competence in the Albanian context has been limited. The research points to challenges such as a curriculum not aligned to global standards, low

levels of inclusion of sustainability reporting and under-developed digital skills. However, these studies are mainly descriptive, and do not empirically investigate the interrelations between education, standards and competence development.

A review of the literature indicates that there is a need for an integrated approach to the development of professional competencies in accounting, which would combine formal education, practical experience and continuing professional development. The gap between education systems and the changing needs of the profession, especially around sustainability reporting and digital transformation, is present, although all the work done by the education system and professional organizations. This study fills this gap by providing empirical evidence on the role of International Education Standards and professional education in shaping professional competencies and sustainability preparedness in Albania.

The existing literature is presented in Table 1 and provides a clear theoretical basis for the study and clearly links previous research related to this to the development of the study hypotheses. The table summarizes the main constructs, identifies areas where literature is lacking, and shows how these gaps lead to the proposed hypotheses.

There is a gap between education and the expectations that the job market and digital development have and despite numerous studies, studies that analyze ESG sustainability reporting are still needed. Studies made by the authors [23, 28] suggest that sustainability issues are increasingly being included in curricula and professional training, but that the inclusion of ESG is at minimal levels. Students have difficulty applying this knowledge in real-world contexts [18-20]

Balancing technical knowledge and professional skills development, IES relies on an integrated approach towards competencies [23]. But empirical evidence shows that curricula are still focused on technical knowledge. Research shows that professional skills such as critical thinking, communication, and problem solving are important to overcome the challenges of sustainability reporting and digital transformation [24, 25]. Based on the literature, it is shown that the development of sustainability reporting competencies is not only a matter of formal university education, but also depends on factors such as ongoing training, organizational culture, and exposure to international practices [26]. Continuing Professional Development (CPD) is important, but evidence on how effective it is remains under study, especially in developing economies [27].

Empirical studies on the development of accounting education and professional competencies in the Albanian context are still limited. Problems have been identified with academic curricula in the past, such as the evidence of the compliance of academic curricula with international accounting education standards, the lack of sustainability reporting and the insufficient development of digital skills. However, these studies are mainly descriptive and have not provided empirical analyses of the relationship between education, standards and competence development at the level of public and private universities in the country. [28-30]. The impact of technology and artificial intelligence on the development of professional competencies of Albanian accountants is highlighted by

[22]. Albanian studies are a contribution to the international literature that emphasizes the need to integrate sustainability issues, digital skills and interdisciplinary competencies in accounting education [31, 32]. However, these studies are mainly at the level of public universities and in private universities, are mainly descriptive and empirical analyses that explore the direct relationships between IES, vocational education and competencies in Albanian education are lacking.

Both international and Albanian literature indicate that professional competency development in accounting and auditing requires an integrated approach, combining formal education, IPD, CPD, and practical experience [33]. There is a gap between the content of curricula and the requirements of professional practice, especially in relation to sustainability reporting and the integration of ESG concepts. Albanian research highlights that current curricula and programs are not fully aligned with market needs and international accounting education standards, although significant work has been done in recent years to converge with the IES, there is still a need for competency-based reforms, practical training, and improvement of digital and interdisciplinary skills [21, 22]. Therefore, further empirical analysis is needed in Albania to strengthen the link between accounting education, professional development and current labor market requirements.

The literature shows the need to integrate formal education, practical experience and continuous professional development in order to develop professional competencies in accounting. The gap between the education system and the needs for professional change, mainly in sustainability reporting and digital transformation, still needs to be minimized based on empirical studies on the role of International Standards of Accounting Education and professional education in the development of professional competencies and preparation for sustainability in Albania. Table 1 summarizes the existing literature by providing a clear theoretical basis for the study and linking previous research to the formulation of the study hypotheses. The table provides a summary of the main concepts and highlights the gaps in the literature and how these gaps affect the hypotheses raised. This systematic approach improves the logical coherence of the literature review and the empirical model.

Table 1. Theoretical relationship between literature and hypotheses development

Construct / Relationship	Theoretical & Empirical Evidence	Identified Research Gap	Hypothesis	Empirical Testing
IES Implementation → Professional Development	IES promotes competency-based professional development through technical competencies, ethics, and continuous learning [1]. Previous studies show that the implementation of	Most prior studies remain descriptive and focus on standard adoption rather than broader professional development	H1: IES implementation is positively related to professional development.	Pearson Correlation & Regression

	international accounting education standards improves professional suitability and performance.	outcomes in emerging economies.		
Professional Accounting Education → Professional Competencies	Contemporary accounting education increasingly requires analytical, digital, communication, and problem-solving competencies beyond traditional technical knowledge.	Limited empirical evidence examines whether professional accounting education effectively develops integrated professional competencies aligned with labor market expectations.	H2: Professional accounting education positively influences professional competencies.	Linear Regression
IES-Related Knowledge & Skills → Sustainability Reporting Preparedness	Sustainability reporting requires interdisciplinary competencies integrating ESG awareness, ethics, analytical thinking, and professional judgment. Literature suggests that traditional accounting education may insufficiently address sustainability-related competencies.	Empirical evidence linking IES-related competencies with sustainability reporting preparedness remains limited, particularly in developing economies.	H3: IES-related knowledge and skills positively affect sustainability reporting preparedness.	Multiple Regression
Professional Experience → Perceptions of IES Implementation	Professional experience contributes to competency formation; however, perceptions of standards implementation may also depend on institutional support and continuous training.	Existing findings regarding the effect of professional experience on perceptions of IES implementation remain inconsistent.	H4: Professional experience significantly influences perceptions of IES implementation.	ANOVA

Integrated Competency-Based Accounting Education Framework	Human Capital Theory and Competency-Based Education Theory emphasize that professional competencies emerge through the interaction of education, standards, ethics, and lifelong learning.	Existing Albanian studies remain descriptive and rarely integrate sustainability reporting preparedness within competency-based accounting education research.	This study develops an integrated framework linking IES, professional competencies, and sustainability preparedness in Albania.	Integrated Empirical Framework
--	--	--	---	--------------------------------

Based on the above table, the hypotheses are derived directly from both theoretical arguments and empirical evidence, ensuring a coherent alignment between the existing literature and the proposed research model.

The International Education Standards (IES) provide a structured framework for the development of professional competencies through the integration of technical knowledge, professional skills, ethics, and continuous professional development. Existing studies suggest that the effective implementation of such frameworks is associated with enhanced professional performance and adaptability, thereby underpinning the proposed relationship between IES implementation and professional development (H1).

Similarly, the literature emphasizes the central role of professional accounting education in developing both technical and transferable competencies required in the contemporary labor market, supporting the hypothesized positive relationship between education and professional competencies (H2). Furthermore, the growing significance of sustainability reporting has introduced increasingly interdisciplinary competency requirements, suggesting that IES-related knowledge and skills are expected to influence perceptions of preparedness for ESG reporting (H3).

This research, unlike previous studies that mainly examined direct relationships among accounting education variables, adopts an integrated competency-based approach, linking International Education Standards (IES), professional competencies, and sustainability reporting preparedness in an emerging economy context. Table 2 presents previous studies that demonstrate the positive role of accounting education in developing professional competencies and how these competencies translate into sustainability reporting readiness. The literature review shows that competency development plays an important role but sustainability readiness is still in its infancy, especially in Albania, where ESG integration is still in its early stages.

Additionally, although professional experience is commonly considered an important factor in competency development, its independent effect on perceptions of IES

implementation is not clear, which justifies testing differences across levels of experience (H4).

The hypotheses are derived from theoretical arguments and empirical findings, thus ensuring a coherent fit between the literature review, conceptual framework and empirical analysis.

Table 2. SOTA (State of the Art)

Study	Country	Method	Main Finding
[3]	Australia	Survey	Accounting education improves professional competencies and employability skills
[40]	Australia	Survey	Accounting curricula are misaligned with labor market expectations
[4]	Romania	Case study	Institutional barriers limit the effective implementation of accounting reforms
[6]	UK	Conceptual	Sustainability reporting requires interdisciplinary competencies (ESG integration)
[2]	Global	Framework analysis	IES standardizes competency-based accounting education (skills, ethics, CPD)
[41]	Singapore	Literature review	Digital transformation reshapes the required accounting competencies
[29]	UK	Case study	Sustainability content remains fragmented in accounting education
[22]	Albania	Empirical	AI and digital transformation influence accounting professional competencies
Current study	Albania	SEM	IES improves competencies, but ESG preparedness remains weak

Theoretical Conceptual Framework and Hypothesis Development

The present study contributes to the literature and adopts an integrated approach to the development of professional competence, considering the interaction between formal education, international standards and continuing professional development (CPD) to build the capacities of individuals in accounting and auditing. The theoretical framework is grounded in the concept of competency-based education, which emphasizes that professional development is not solely the result of acquiring technical knowledge but of integrating knowledge, skills, and values into practice [1, 2].

This conceptual framework explains only how international education standards (IES) directly affect the formation of a skilled and prepared professional for the global labor market. IES defines the knowledge that an accountant should gain from university in initial professional development and the knowledge that is known to continue to gain during professional training while exercising the accounting profession, translating into professional competencies in the performance of their work.

These competencies are essential, but finally, with the update of the IES in accounting, which also includes ESG, and their version will enter into force in July 2026, they have a

fuller scope to ensure sustainability in environmental issues, social responsibility, and government policies. Additionally, from a practical point of view, the more structured and qualitative the education according to IES, the better prepared the professional will be to contribute to a global and sustainable economy.

Professional competencies are conceptualized as a potential mediating mechanism between the implementation of International Education Standards (IES) and perceived competence for sustainability reporting, see Figure 1. IES provides the formal framework for the development of technical knowledge, professional skills, ethics, and continuing professional development, but sustainability reporting requires the practical integration of these competencies in complex and interdisciplinary professional contexts.

Thus, the effect of IES on preparedness for sustainability may not be direct, but mediated through the development of professional competencies, including analytical thinking, communication, ethical judgment, digital skills, and problem-solving skills. This view is in line with the theory of competency-based education and supports the assumption that competencies are an important mechanism linking educational standards and professional skills related to sustainability.

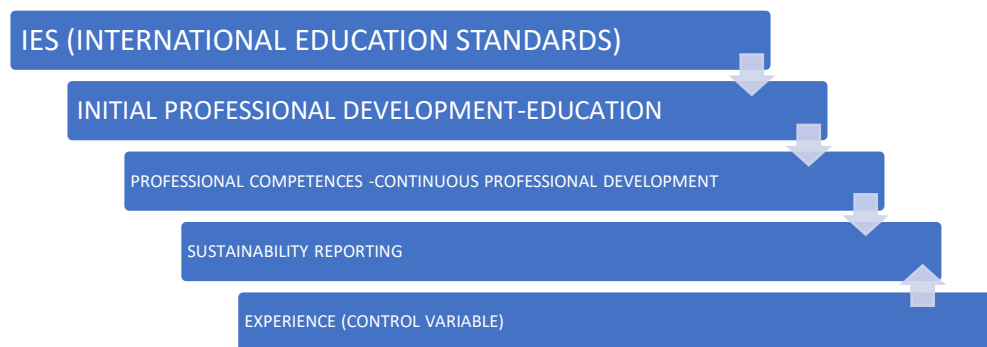


Figure 1. Theoretical and conceptual framework diagram

The International Education Standards (IES) provide a standardized framework for competency development, including technical knowledge (IES 2), professional skills (IES 3), professional values and ethics (IES 4) and continuing professional development (CPD) (IES 7) [34-37]. The implementation of these standards impacts professional development and individual performance, which is the basis of our first hypothesis [15].

Professional education in accounting is considered an important instrument in the development of professional competencies. Empirical studies show that structured education and training programs have a direct impact on the technical and analytical skills of professionals [23]. This supports our second hypothesis: *Professional accounting education positively influences the development of professional competencies.*

This confirms our second hypothesis, namely the positive impact of professional education in accounting on the formation of professional competencies. According to the literature on sustainability reporting, professional competency requirements are complex

and interdisciplinary as they require not only technical knowledge, but also analytical skills, professional judgment and understanding of ESG issues [12]. There is little evidence on the impact of IES components on sustainability reporting readiness. Therefore, the third hypothesis is: H3: *IES-related knowledge and skills positively influence perceptions of sustainability reporting readiness.*

The issue of the role of professional experience in developing skills and perceptions remains to be studied and evidenced. Several studies suggested a positive impact of experience. Other studies have found that experience alone is not sufficient to ensure compliance with professional standards without systematic education and continuous training [25]. This supports the testing of our hypothesis 4: *Professional experience influences perceptions of IES implementation.*

The theoretical framework combines the perspectives of competency-based education and international standardization and provides an analytical basis for empirically testing the relationships between education, standards, and professional development in the context of a developing economy [38-41].

The research is based on Competency-Based Education and Human Capital Theory. IES provide a structured framework for developing accounting competencies in technical knowledge, skills, ethics, and lifelong learning [2]. IES enhance professional competencies, which are the connecting bridges between education and professional outcomes. The effect on sustainability reporting readiness, however, is not so straightforward because ESG readiness depends on skills and institutional support beyond formal education. In the context of developing economies such as Albania, this relationship is also moderated by contextual constraints such as weak ESG integration and professional practice conditions.

METHODOLOGY

The study uses a quantitative research design to assess the implementation of the International Education Standards (IES) and its impact on professional accounting education, professional competencies and perceived readiness for sustainability reporting. The study is based on a benchmarking framework derived from the IFAC Global Accounting Education [42] model and the International Education Standards (IES 1–8). The objective is to assess the level of adoption and implementation of international accounting education standards across key competency domains.

Research Instrument and Theoretical Framework

Data were collected through a structured questionnaire developed in line with the competency-based structure of the IES framework. In accordance with the nature and requirements of the study. A structured questionnaire was administered to evaluate the level of implementation of International Education Standards (IESs) in accounting education, based on the four pillars presented in Table 3, as well as to capture professionals' perceptions regarding ESG sustainability reporting. The questionnaire serves to assess the level of Personal Development,

Professional Education, Accounting Professional Development, Competences for Professionals, IES 2 – Technical competence, IES 3 – Professional skills, IES 4 – Ethics and professional values, IES 6 & IES 7 – Continuous assessment and development, which is addressed to professionals and members of associations, to analyze the level of implementation of education standards.

A structured questionnaire was used to collect primary data. The empirical analysis combines Exploratory Factor Analysis (EFA) and Structural Equation Modeling (SEM), supported by regression-based techniques.

The target population includes professionals and individuals engaged in accounting and auditing (e.g., accountants, auditors, and advanced students). Data were collected using a structured survey distributed electronically. A non-probability convenience sampling method was employed. The sample size meets adequacy requirements for multivariate analysis, as confirmed by KMO (0.899) and Bartlett's Test ($p < .001$). All constructs were measured using a five-point Likert scale (1 = strongly disagree, 5 = strongly agree).

Constructs included:

- IES 2 – Technical Competence
- IES 3 – Professional Skills
- IES 4 – Professional Ethics and Values
- IES 6 & 7 – Continuous Professional Development
- Professional Accounting Education
- Professional Development
- Professional Competencies
- Perception of sustainability reporting preparedness.

For data collection, analysis, and interpretation, we have chosen a combination of quantitative methods that emphasize collecting data that can be processed statistically and qualitatively (including research and reflection on subjective issues such as values, behaviors, or perceptions). The assessment questionnaires are built on four sub-pillars designed from the conceptual framework of the IES and identifiable as Personal Development, Professional Accounting Education, Professional Development, and Competencies for Professional Auditors. The more detailed divisions within each sub-pillar serve as milestones, which are statements within the questionnaire based on the requirements of IESs 1-8.

The study adopts a quantitative benchmarking design grounded in the IFAC Global Accounting Education [42] framework and the International Education Standards (IES 1–8)[2]. Rather than focusing on curriculum content analysis, the objective is to assess the level of adoption and implementation of internationally recognized accounting education standards across key dimensions of professional development.

The methodological approach is based on a structured self-assessment instrument derived from the [42] model, which organizes accounting education into four interrelated pillars: personal development, professional accountancy education, professional development, and competence for audit professionals. Each pillar is set into use by specific moments that are in conformity with the requirements of the IES framework. The instrument was developed according to the questionnaire construction framework presented in Table 3, which analyzes four main competency domains:

- Personal Development
- Professional Accounting Education
- Professional Development
- Professional Audit Competencies

Each domain is aligned with relevant IES standards (IES 2–7), ensuring consistency between the theoretical framework and empirical measurement. The questionnaire includes:

- Adoption indicators (Yes/No format)
- Implementation indicators measured using a 5-point Likert scale

This approach enables the assessment of both formal adoption and the depth of implementation of international standards.

The following table provides a schematic representation of the questionnaire construction tree.

Table 3. Questionnaire construction framework

Sub-pillars	Questionnaire Items
Personal development	1.1 Entry and exit levels of university education
	1.2 Intellectual and technical skills
	1.3 Professional values, ethics, and attitudes
Professional accounting education	2.1 Accounting, finance, and related knowledge
	2.2 Organizational and business knowledge
	2.3 Information technology competencies
Professional development	3.1 Practical experience
	3.2 Performance assessment mechanisms
	3.3 Continuing Professional Development (CPD)
Competencies for professional auditors	4.1 Advanced auditing competencies
	4.2 Audit skills and professional ethics
	4.3 Advanced professional judgment in auditing

The questionnaires were distributed electronically via Google Form and Word format, by sending the link via email, and were also submitted in print to be completed manually, as the number of responses received was initially low. For this paper, the questionnaires were distributed to 568 accounting professionals, academic staff, members of accounting associations, and professionals, and experts mainly in the accounting, finance, and management profiles in the faculties of economics at universities. From the distributed

questionnaires, we received 119 responses from mainly finance and accounting profiles, and the response rate is 21% of members and accounting professionals. Before we started distributing the questionnaires in October 2025, a control test was conducted. The pilot test was distributed to 28 respondents in order to receive suggestions and test the suitability of the questionnaire and the questions included in it. After receiving the responses to the control test questionnaires, questions that were not clearly understood, questions that were judged to be long, and whose answers needed to be changed were modified. We also removed three open-ended questions from the questionnaire by replacing them with alternative questions (including the “other” alternative) after we found that these questions were left uncompleted by the respondents. In order for the questionnaire responses to be true, we included similar questions in the questionnaires but expressed them differently and changed their order. After receiving the questionnaires in electronic and manual form, we removed those questionnaires that we considered invalid due to the inconsistency in completing the control questions.

The study further draws on publicly available data and expert-informed responses to enhance validity and reliability. We apply quantitative analysis tools such as correlation, regression and analysis of variance to examine the associations between IES implementation, professional education and sustainability reporting readiness. The design of the questionnaire helps us in comparability, standardization and cross-dimensional analysis on the qualitative study of curriculum structures. Primary data was collected through structured questionnaire on five-point Likert scale. The Likert scale was selected because it is widely used in social science research and allows for the measurement of perceptions, attitudes and subjective assessments of respondents.

The study aims to investigate the effect and contribution of International Education Standards (IES) and professional accounting education on the development of professional competencies and perceptions of sustainability reporting. This technique allows to objectively measure correlations between independent and dependent variables, employing standardized instruments and statistical procedures appropriate for ordinal and interval data. The study seeks to address the following research questions [42]:

RQ1: Relationship between professional development and IES implementation

RQ2: Impact of professional accounting education on professional competences

RQ3: Effects of IES-related competencies on readiness for sustainability reporting

RQ4: Differences in perceptions of IES implementation by experience level

According to the research questions, the hypotheses were formulated as follows:

H1: There is a positive relationship between IES implementation and professional development.

H2: Professional accounting education has a positive impact on professional competencies.

H3: Knowledge and skills of IES have a positive effect on preparation for sustainability reporting.

H4: Professional experience has a significant impact on perceptions of IES implementation.

The study population consists of accounting and auditing professionals in Albania. The sample is representative and has 119 respondents. There is a mix of professionals with varying educational backgrounds and experience. Convenience sampling was used to balance the age groups and career levels of participants. Data were collected through a structured questionnaire which included:

- Sections on the implementation of International Education Standards (IES 2–7)
- Sections on professional accounting education
- Sections on professional competencies and continuing professional development (CPD)
- Sections on perceptions of preparedness for sustainability reporting
- Details of professional experience

The study is defined based on the conceptual framework and Table 2:

Independent Variables (IV): Implementation of IES (2–7), Professional accounting education, Professional experience.

Dependent Variables (DV): Professional development, Professional competencies, Perceived readiness for sustainability reporting

All variables were rated on a 5-point Likert scale, which is suitable for standardized quantitative analysis. Several statistical methods were used in the study to test the hypotheses. Pearson correlation was used to determine the relationship between IES implementation and professional development (H1). Simple linear regression was used to examine the effect of professional accounting education on the development of professional competencies (H2). To explore the data, multiple linear regression was used to analyze the effect of different IES components on the perception of sustainability reporting readiness (H3). ANOVA was used to test whether perceptions vary by level of professional experience (H4).

- H1: *Pearson correlation* to test the correlation between IES implementation and professional development.
- H2: *Simple linear regression* to test the effect of professional accounting education on professional competencies.
- H3: *Multiple linear regression* to test the impact of IES elements on perceptions of sustainability reporting readiness.
- H4: *One-way ANOVA* to test for differences in perceptions based on professional experience.

All analyses were performed using JASP and Excel software, and statistical significance of relationships between variables was determined at the $p < 0.05$ level. Construct validity was ensured based on compliance with the IES framework and Table 2. Pilot testing and

the use of a standardized Likert scale measurement increased reliability. Ethical approval for the study was obtained from the institutional ethics committee.

The study purpose was explained to the participants and informed consent was obtained before participation. Strict confidentiality and anonymity were preserved.

Participants were fully informed about the purpose of the study and the confidentiality of their data, and gave their informed consent (via questionnaire) prior to submission. The methodological design is a direct translation of the theoretical constructs into measurable empirical indicators (Table 2). Figure 2 depict the methodology flowchart for our research study.

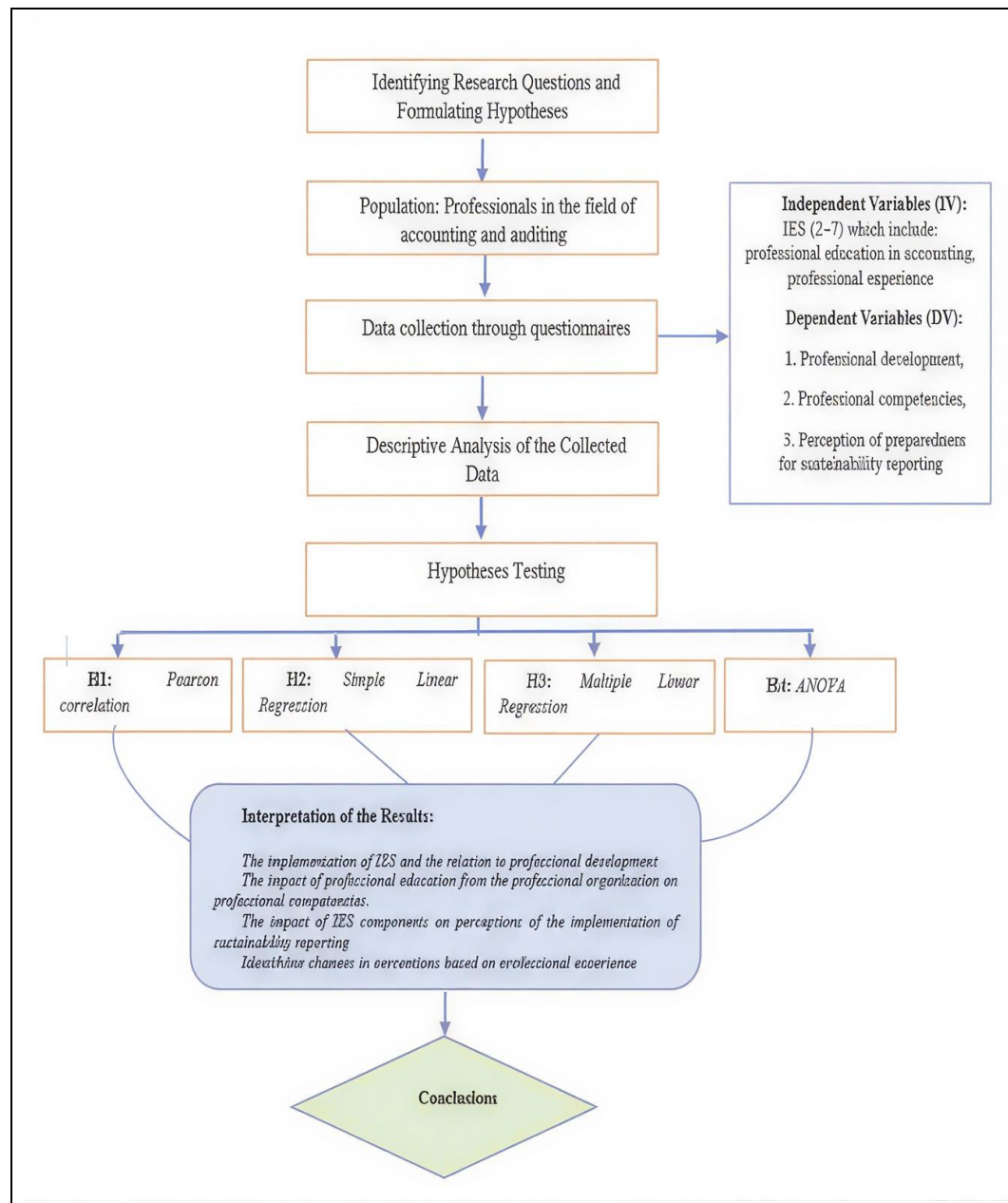


Figure 2. Methodology flowchart

Each sub-pillar is mapped to specific competency areas to ensure a complete mapping between:

- Theoretical framework;
- Measurement instrument;
- Empirical analysis model

This ensures that the study examines the implementation of international standards and their effects on the development of professional competence and readiness for sustainability reporting.

ANALYSIS

This section presents empirical results of research on the implementation of International Education Standards (IES 2–7) and its impact on professional accounting education, professional competencies and perceptions of sustainability reporting (ESG). The study uses data from 119 valid respondents, accounting and auditing professionals in Albania. Data were analyzed by quantitative statistical methods such as Pearson correlation analysis, simple and multiple linear regression analysis, and one-way ANOVA. All statistical analyses were performed in JASP and Microsoft Excel. Statistical significance was set at $p < 0.05$. The data analysis was done to test study hypotheses and to investigate the effect of the International Education Standards (IES) and professional accounting education on the professional competencies and perceptions of readiness for sustainability reporting.

Quantitative comparative research was used, applying the IFAC Global Accounting Education framework and the International Standards of Education (IES 1-8). The measurement structure is fully consistent with Table 4 (questionnaire construction framework). In terms of sample composition, respondents are dominated by two major higher education institutions that account for the majority of participants. The names of the institutions are not given for ethical and confidentiality reasons.

Table 4. Distribution of respondents by higher education institution

Institution	Frequency	Percentage
University A	68	57.5%
University B	44	37.5%
Other institutions	7	5.0%
Total	119	100%

The results show that the sample is dominated by two major higher education institutions in the country, which may affect the generalizability of the findings. The results may reflect more the characteristics and approaches of these universities in accounting education. The sample is composed mainly of graduates in the fields of accounting and finance, which gives a firm relevance to the objectives of the study. Most of the respondents

are from accounting (45.8%) and finance (26.7%) followed by inter-disciplinary fields like business management and economics. This is a confirmation of the high relevance of the sample for the assessment of accounting education and professional competencies, see Figure 3.

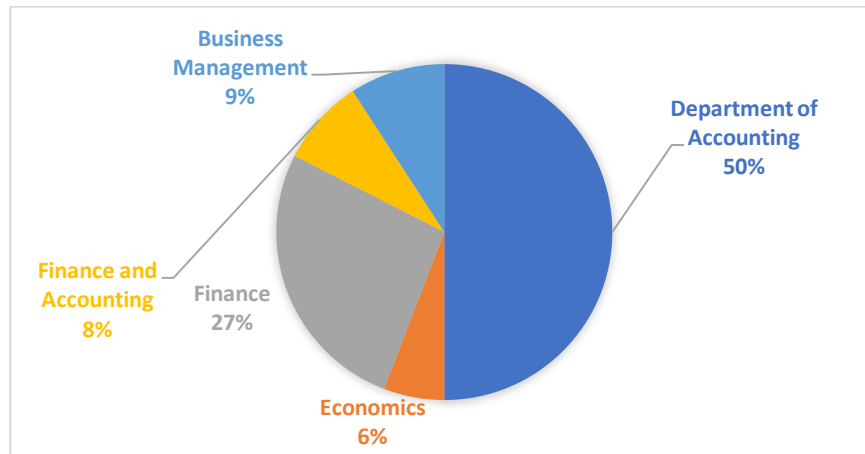


Figure 3. Department where respondents completed their studies

The results show that participants are people who have done training in the field of accounting and finance, which makes the analysis more specific and relevant for the study of professional competencies in accounting and auditing. The distribution of respondents by job position shows a wide representation of professional and academic profiles. The largest group are private sector accounting/finance professionals (45). This suggests that the study was populated by active practitioners. The other group includes certified public accountants CPA (32) and students in the Master of Science (25), showing an acceptance balance of professional experience and higher education.

The sample was diversified as it included 22 public sector professionals, 19 auditors, and 17 Bachelor students. Senior manager roles (e.g., CEO/CFO, $n = 15$) and academic staff ($n = 13$) were less represented. The smallest group was the Professional Master's students with a total of 12. The sample consists of professionals operating in the labor market and students, which formed a good basis for the analysis of perceptions of accounting education and professional competencies (Figure 4).

The data analysis included an analysis of the structure of the variables, as well as the quality of the measuring instrument. The suitability of the data for multivariate statistical analysis was assessed before the main analyses in terms of the relationships between the variables and internal consistency. The Bartlett test was applied to check whether the correlation matrix was suitable for factor analysis. The relationship between the variables was statistically significant ($p < .001$) and justified an exploratory factor analysis (EFA). The reliability of the instrument was measured by the Cronbach's Alpha coefficient (Table 5) to assess the internal consistency of the scales. The Bartlett test confirmed the suitability of the correlation matrix for factor analysis. EFA reduced the number of dimensions to more interpretable factors by identifying the underlying structure of the data. The results of this

study help to build a clearer and more stable model of the variables studied. In some cases, composite variables were created by aggregating a number of indicators into a single measure. This technique simplifies the analytical model and improves the stability of the measurements, especially when individual indicators are strongly related to each other. These analyses helped to determine the validity and reliability of the research instrument and gave a strong methodological basis for the hypothesis testing of the study.

Testing of the hypothesis raised,

- IES 2–7 was aggregated into a composite index (H1)
- IES 2, 3, and 4 were treated as separate predictors (H3)

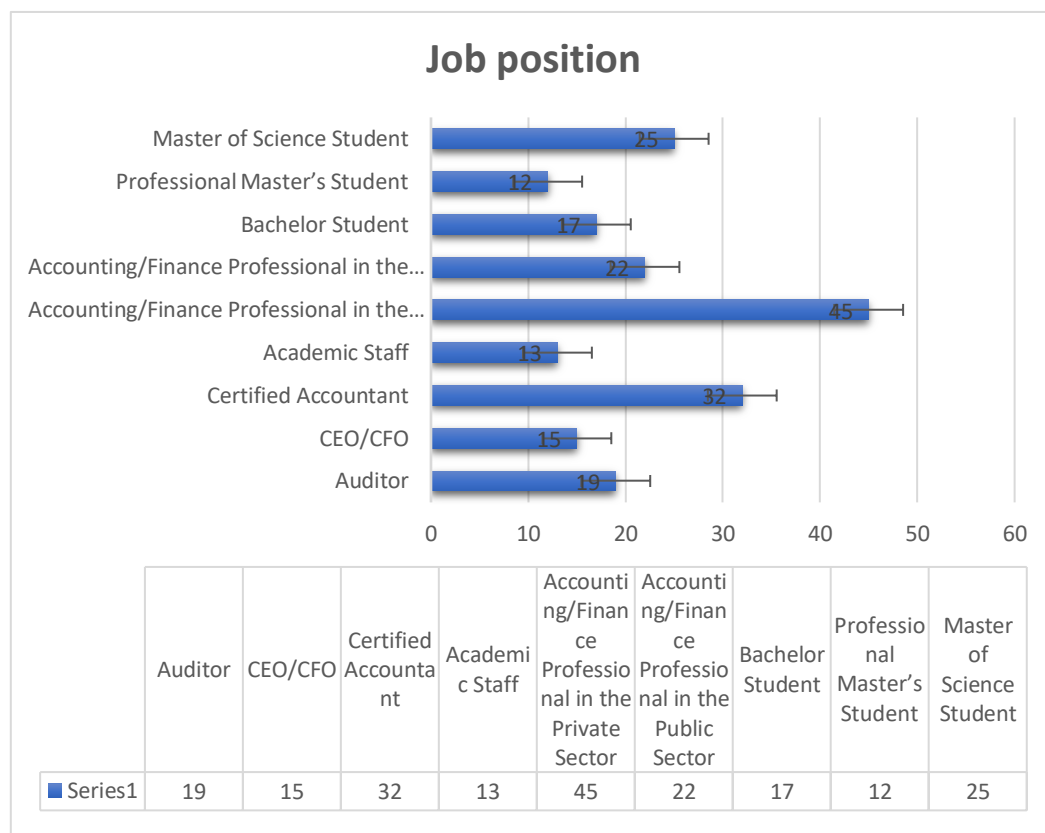


Figure 4. Current job position

The reliability and validity of the measurement instrument were rigorously assessed to ensure accuracy and consistency of study findings. Internal consistency reliability was assessed using Cronbach's alpha coefficient. The results indicated a value of $\alpha = 0.948$, which exceeds the commonly accepted threshold of 0.70 and demonstrates excellent internal consistency among the items. Cronbach's Alpha (Table 5) measured internal consistency of the scales, ensuring indicators consistently measured the same theoretical construct. The narrow confidence interval (0.921–0.964) confirmed the stability and robustness of the reliability estimate.

The preliminary analysis confirmed the adequacy and reliability of the data. The measurement instrument demonstrated excellent internal consistency (Cronbach's $\alpha = 0.948$), indicating a high level of coherence among items. The Kaiser-Meyer-Olkin (KMO) value of 0.899 and statistically significant Bartlett's Test ($p < .001$) confirmed the dataset's suitability for factor analysis.

Table 5. Reliability Analysis of the Measurement Scale (Cronbach's Alpha)

Frequentist Scale Reliability Statistics				
			95% CI	
Coefficient	Estimate	Std. Error	Lower	Upper
Cronbach's α	0.948	0.011	0.921	0.964

To examine the suitability of the data for factor analysis and to assess construct validity, the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity were conducted, see Table 6. The KMO value was 0.899, considered highly satisfactory, indicating the sample was adequate for factor analysis. Individual Measure of Sampling Adequacy (MSA) values exceeded the recommended threshold, confirming each variable contributed meaningfully to the factor structure.

Table 6. Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy for the study constructs

Kaiser-Meyer-Olkin Test	
	MSA
Overall MSA	0.899
Competencies for Professional	0.881
Professional Accounting Education	0.914
Personal Development	0.947
Professional Development	0.925
IES 6 & IES 7 – Continuous professional assessment and development	0.823
IES 2 – Technical competence	0.911
IES 4 – Professional ethics and values	0.863
IES 3 – Professional skills	0.922

Bartlett's Test of Sphericity was statistically significant ($\chi^2 = 932.413$, $df = 28$, $p < .001$), indicating sufficient correlations among variables to justify factor analysis, see Table 7. Additionally, Table 8 depict the chi-square test results for overall model fit assessment.

Table 7. Results of Bartlett's test of sphericity for factorability assessment

Bartlett's Test		
χ^2	df	p
932.413	28.000	< .001

Table 8. Chi-Square Test results for overall model fit assessment

Chi-Squared Test			
	Value	df	P
Model	144.305	20	< .001

The Exploratory Factor Analysis (EFA) used the Promax rotation. Results showed high factor loadings between 0.728 and 0.896, indicating that all variables significantly contributed to the underlying construct. Figure 5 depicts the structural model evaluation where COMP is Competency Development, TECH is Technical Skills; PROF is Professional Capability, ETH is Professional Ethics, EXP is Work Experience, IES is International Education Standards (IES 2-7), and PREP is Preparedness for Sustainability Reporting.

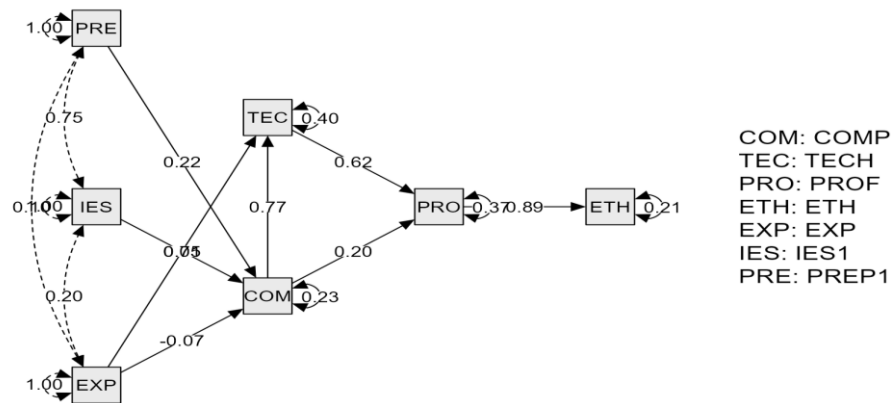


Figure 5. Structural model evaluation (SEM Results)

Indices of fit for the model showed generally acceptable structural fit. CFI=0.949; IFI=0.950 and NFI=0.935, which indicate a good fit between the hypothesized model and the observed data. The TLI=0.908 and SRMR=0.057 also indicate adequate fit and residual error. However, the value of the RMSEA (0.162) exceeds the conventional limits, suggesting a possible model misspecification or sensitivity to sample size, although the general pattern of fit indices still supports the overall adequacy of the model. Furthermore, the limited ($R^2 = 0.161$) for sustainability reporting preparation indicates that IES-related competencies can explain a small amount of the variance of ESG preparation. The finding is theoretically important as it shows that sustainability reporting is not only an individual competence but also determined by wider institutional and contextual factors such as ESG maturity, organizational culture, regulatory implementation and the degree of integration of sustainability in the accounting practice in Albania. Therefore, sustainability readiness should be considered as a multidimensional construct shaped by educational, institutional, and organizational factors, in addition to IES.

The results show that PRE had a positive effect on COM ($\beta = 0.22$), which means that the higher the preparation, the better the communication outcomes. The effect of IES on COM was very weakly positive ($\beta = 0.05$), and the effect of EXP on COM was small and negative ($\beta = -0.07$). The results showed a significant effect of COM on TEC ($\beta = 0.77$), TEC on PRO ($\beta = 0.62$), COM on PRO ($\beta = 0.20$) and PRO on ETH ($\beta = 0.89$).

The structural model was assessed through the coefficient of determination (R^2). This suggests that sustainability readiness is determined by broader institutional and

educational factors and not only by the implementation of IES. The limited integration of sustainability and ESG-related content into accounting education programs, as well as the early stage of sustainability reporting practices in Albania, may explain the low explanatory power ($R^2 = 0.161$). This result may also be associated with the lack of institutional support for Continuing Professional Development (CPD) and the gap between academic curricula and international sustainability requirements.

This is explained by Human Capital Theory and Institutional Theory. Human Capital Theory suggests that investments in education build competencies, but do not automatically result in sustainability readiness without the support of other institutions. Institutional Theory also states that the effectiveness of such educational outcomes is determined by structural and regulatory conditions. However, the model better explains Professional Competencies ($R^2 = 0.773$), Technical Competence ($R^2 = 0.605$), Professional Development ($R^2 = 0.631$), and Ethics ($R^2 = 0.791$). The model has good predictive significance and good internal consistency. These findings support the model's ability to account for competency development better than sustainability outcomes.

The results of the structural model provide strong empirical support for the hypothesized developmental progression across all constructs examined. The results indicate that communication is a significant antecedent of the sequential relationships of the investigated constructs. Communication has a positive effect on technical competence, and technical competence has a positive effect on professional development. This sequential relationship implies that competencies do not develop independently, but in an organized and interconnected manner. Specifically, the high impact of communication on technical competence ($\beta = 0.77$) indicates that effective communication is an important basic skill for knowledge transfer and skill development. Furthermore, the impact of technical competence on professional growth ($\beta = 0.62$) also supports technical competence as an important mediator in the process of competence development. Professional development was positively and strongly related to ethical outcomes ($\beta = 0.89$), indicating the importance of continued professional development in ethical behaviour.

The theoretical perspective provides a consistent explanation for the relationships found in the model. The findings suggest that the development of competencies is influenced by wider contextual and experiential factors, as well as formal education structures such as International Education Standards (IES).

The model shows a higher explanatory power for competency-related outcomes than for sustainability readiness. This supports the claim that sustainability readiness is a multidimensional outcome conditioned by educational contexts and educational institutions. In short, the model provides a coherent and theoretically sound explanation of the sequential development of competencies from communication to technical competence, professional development and finally ethical behavior, while at the same time pointing to the limited explanatory power for sustainability-related outcomes.

Hypotheses Development and Analytical Approach

This study proposes hypotheses based on a theoretical relationship between the International Education Standards (IES), professional accounting education, and the development of accounting and auditing competencies. The hypotheses are formulated to empirically test both direct relationships and group differences among the key constructs.

The first hypothesis indicates a positive and statistically significant relationship between the implementation of IES and professional development. This assumption is based on the premise that structured education standards improve knowledge, skills, and continuous learning. To test this hypothesis, the components of the IES were aggregated into a composite index and analysed in relation to professional development using Pearson correlation and linear regression analysis.

The second hypothesis examines the impact of professional accounting education on the development of professional competencies. It is expected that higher levels of formal accounting education will make a significant contribution to the acquisition of competencies required in the profession. This relationship was tested using linear regression analysis and correlation measures were used to assess the strength and direction of the association.

The third hypothesis concerns the perception of readiness to report on sustainability. It assumes that individuals with higher levels of technical competence, professional skills and ethical awareness (represented by IES 2, IES 3 and IES 4) are more likely to consider that accounting education is adequately preparing them for sustainability reporting. This hypothesis was tested through a multiple regression analysis, where the effects of these three predictors could be assessed simultaneously on the dependent variable. When the dependent variable was considered as a categorical variable, analysis of variance (ANOVA) was also applied.

The fourth hypothesis tests for statistical differences in perceptions of IES implementation according to work experience. This hypothesis assumes that respondents with different levels of professional experience may perceive the effectiveness of IES differently. To examine this, a one-way ANOVA was conducted to compare mean differences between experience groups.

All statistical analyses were performed, and the statistical significance level was set at $p < 0.05$. The analytical approach allows for a holistic assessment of the relational and comparative dimensions of the proposed research model.

Hypothesis Testing

Hypothesis 1: There is a positive relationship between IES implementation and professional development.

To test this, the following sub-hypotheses were formulated:

Ho: There is no statistically significant relationship between the implementation of IES (2–7) and the professional development of individuals in accounting and auditing.

Ha: There is a statistically significant and positive relationship between the implementation of IES (2–7) and professional development.

Pearson correlation analysis reveals a significant positive correlation between IES implementation and professional development ($r = 0.890$, $p < 0.01$), see Table 9. IES implementation also has a strong relationship with Continuing Professional Development (CPD) ($r = 0.787$, $p < 0.01$). Hypothesis 1: IES implementation is positively associated with professional development. On the other hand, professional experience shows a very weak relationship with the other variables ($r < 0.20$), which may imply that experience itself is not a key factor in this context.

These results support the alternative hypothesis (H_a), which stated that the implementation of International Education Standards has a significant and positive impact on the professional development of accounting and auditing professionals. This is in line with the literature that claims that international standards improve the professional image and relevant competencies of accounting professionals.

Table 9: Pearson correlation between IES and professional development

	4.13889	4.2	4.2	4
4.13889	1			
4.2	0.890314	1		
4.2	0.787226	0.668168	1	
4	0.165105	0.106147	0.18757	1

Hypothesis 2: Professional accounting education has a positive impact on the development of professional competencies.

To test this, the following sub-hypotheses were formulated:

Ho: Professional accounting education does not have a positive or significant impact on the development of professional competencies.

Ha: Professional accounting education has a positive and statistically significant impact on the development of professional competencies.

The results of the linear regression analysis show that professional accounting education has a positive and statistically significant effect on the development of professional competencies. The regression model was appropriate and statistically significant ($F(1,117) = 205.92$, $p < 0.001$), with a coefficient of determination $R^2 = 0.6377$.

The regression equation (1) fitted to the collected data is:

$$\text{Professional Competencies Development (Y)} = 0.955 + 0.7595 \times \text{Professional Accounting Education (X)} \quad (1)$$

Where:

Y = Value of developing professional competencies

X = Professional Accounting Education (X)

$a = 0.955181$ (approximately 0.955) is the level of professional competencies when the professional accounting education is zero.

β (regression coefficient of X) = 0.760 (from Excel output)

Intercept (a) = 0.955

$R^2 = 0.6377$; p-value < 0.001

The regression coefficient ($b = 0.760$) indicated that a unit increase in professional accounting education was associated with a 0.760 unit increase in the development of professional competencies. The p-value for β was very small ($p < 0.001$), showing the effect was statistically significant. The findings support the alternative hypothesis (H_a) that professional accounting education has a significant positive effect on the development of professional competencies. The finding indicates the importance of formal training and continuing professional education in accounting and auditing as factors to improve the technical knowledge, analytical skills, and practical capabilities of professionals.

This is consistent with the current literature, which describes professional education and training as important dimensions of professional development [23]. Hypothesis 3 states that knowledge and skills, according to IES, positively influence perceptions of preparedness for sustainability reporting. Furthermore, the high explanatory power of the model suggests that policies and programs in professional education can serve as effective tools to improve the performance and professional growth of accountants and auditors.

Hypothesis 3: Knowledge and Skills According to IES Positively Influence Perceptions of Preparedness for Sustainability Reporting

To test this hypothesis, multiple linear regression (Table 2, Annex) was conducted with four IES components as independent variables (X_1 , X_2 , X_3 , and X_4) and perceptions of preparedness for sustainability reporting as the dependent variable (Y). The regression model is formulated as equation (2):

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \quad (2)$$

Where:

Y : Perception of preparedness for sustainability reporting (DV)

X_1 : IES 2 – Technical competencies

X_2 : IES 3 – Professional skills

X_3 : IES 4 – Ethics and professional values

X_4 : IES 6 & 7 – Assessment and continuous professional development (CPD)

β_0 : Intercept the baseline perception when all IES components are 0

$\beta_1/2/3$ and β_4 : Regression coefficients for each respective component

ε : Error term

More specifically, technical competencies are addressed in IES 2 (X_1), professional skills in IES 3 (X_2), professional ethics and values in IES 4 (X_3), and assessment and continuous professional development (CPD) in IES 6 and 7 (X_4).

In this case, β_0 is the model constant or the level of perception when all components of the IES are zero. The coefficients β_1 , β_2 , β_3 , and β_4 are the effect of each component on the dependent variable, and ε is the random error term that takes into account the effect of other factors not included in the model. The statistical analysis resulted in the following

regression model: This model enables us to evaluate the impact of each dimension of professional education on the individuals' perception of their willingness to report on sustainability, and therefore provides a solid basis for the interpretation and discussion of empirical results. The statistical results obtained the regression equation (3):

$$\text{Perception of readiness for sustainability reporting (Y)} = 1.644 + 0.099X_1 + 0.343X_2 - 0.085X_3 + 0.072X_4 \quad (3)$$

Regression results show a moderate relationship between predictors (components of IES) and perceptions of readiness for sustainability reporting. $R^2 = 0.161$ indicates that about 16.1% of the variance in perceptions is explained by the IES components, and Adjusted $R^2 = 0.132$ indicates a moderate fit of the model.

The analysis shows that the individual effect of knowledge and skills according to the International Education Standards (IES) on perceived preparation for sustainability reporting is moderate and statistically insignificant for most components. However, the second component (ISE 3 – Professional Skills) has a positive trend ($\beta = 0.343$, $p \approx 0.055$), indicating a possible effect that could be confirmed with larger samples or more specialized analyses in future studies, see Table 10.

Table 10. Hypothesis 3 test results

Component	β (Coefficient)	Std. Error	t-stat	P-value	Conclusion
Intercept	1.644	0.420	3.914	0.000	"Baseline perception when all components are equal to zero."
X1: IES 2 – Technical competencies	0.099	0.179	0.550	0.584	"Not statistically significant."
X2: IES 3 – Professional skills	0.343	0.177	1.937	0.055	"Positive trend, but not statistically significant ($p > 0.05$)."
X3: IES 4 – Professional ethics and values	-0.085	0.207	-0.412	0.681	"Not statistically significant."
X4: IES 6 & 7 – CPD	0.072	0.179	0.404	0.687	"Not statistically significant."

Findings indicate that knowledge and skills related to IES have a limited impact on perceptions of preparedness for sustainability reporting.

Why Does IES Improve Competencies but not Enhance Readiness for Sustainability Reporting?

The study concluded that the International Education Standards have a strong impact on the development of professional competence, but only a limited explanatory power for the preparedness for sustainability reporting. This finding suggests that traditional training of accountants and professional education could be effective in developing technical competence, professional skills, and ethical awareness, but less effective in

equipping professionals to work on sustainability issues. From the Human Capital Theory point of view, education and training increase professional capabilities through knowledge and skills accumulation. Nonetheless, sustainability reporting goes beyond traditional accounting knowledge and requires other competencies such as ESG literacy, stakeholder engagement, environmental assessment, and integrated reporting capabilities. A complementary explanation is offered by Institutional Theory. Sustainability reporting practices are often less institutionalized than traditional financial reporting in developing and transitional economies. Hence, professionals might not be exposed much to ESG-related reporting requirements, and this limits the effectiveness of existing educational frameworks in developing sustainability preparedness.

The results show that sustainability readiness is not only a question of compliance with International Education Standards, but also of integration of ESG-specific content, practical training opportunities and institutional support structures. The findings suggest that traditional accounting education is not fully responsive to the interdisciplinary demands of sustainability reporting and that factors other than IES may be more relevant for predicting sustainability readiness.

The rather low explanatory power of the sustainability readiness model ($R^2 = 0.161$) indicates that the current framework does not capture the relevant determinants of sustainability readiness. This finding indicates that willingness to engage in sustainability reporting is conditioned by a wider range of factors such as organizational culture, regulatory pressures, professional education with an ESG orientation of stakeholders, and practical experience in reporting. Therefore, sustainability readiness should be viewed as a multidimensional construct that cannot be fully explained by traditional accounting education variables.

Hypothesis 4: Perceptions of IES implementation are influenced by professional experience.

To test it, the following sub-hypotheses were made:

H₀: There are no statistically significant differences in perception between groups with different levels of professional experience.

H_a: There are statistically significant differences in perceptions between groups according to professional experience.

Testing Hypothesis H4 aims to determine whether there is any statistically significant difference in perceptions of IES implementation according to professional experience. For this purpose, a One-Way Analysis of Variance (One-Way ANOVA) was performed, see Table 11. First, descriptive statistics were analysed to determine the distribution of perceptions across experience groups. The mean perception scores were between 1.80 and 2.31, which indicated a relatively low level of perception and limited differences between groups. The standard deviations are relatively high. This indicates high variability within each group.

The main assumptions of the model were tested before the ANOVA analysis. Levene's test for homogeneity of variances was not statistically significant ($F(4,115) = 1.684, p =$

0.158), confirming the assumption of equal variance. Furthermore, visual inspection of the Q-Q plot showed that the residuals were approximately normally distributed, supporting the validity of the analysis.

Table 11. Differences in perception by work experience (One-Way ANOVA)

Source	Sum of Squares	Dif.	Mean Square	F	p
Between Groups	5.022	4	1.256	0.978	0.422
Within Groups	147.600	115	1.283		
Total	152.622	119			

The ANOVA results showed no significant differences in perceptions of IES implementation across work experience groups ($F(4,115) = 0.978$, $p = 0.422$). The effect size was small ($\eta^2 = .033$), suggesting that work experience explains only a small portion of the variance in perceptions of IES implementation. We further confirmed the robustness of the conclusion with the Brown-Forsythe test, which also reached a non-significant result ($p = 0.273$) and, therefore, supported the robustness of the findings.

Post hoc analyses (Tukey HSD) revealed no statistically significant differences between any pair of groups ($p > 0.05$ for all comparisons), providing further support for the lack of work experience effects.

In conclusion, although the means between groups were generally small, they were not statistically significant. This indicates less effect of work experience on perception towards IES implementation.

The effect size is small ($\eta^2 = .033$) and implies that even if there were a significant effect, the practical importance of work experience to these perceptions is minor. This finding suggests that professional experience may be less significant than institutional support, professional training and familiarity with international standards in shaping perceptions of standards implementation. This is consistent with existing literature on the importance of organizational context and continuing professional development for standards adoption [19]. In accounting and auditing research, factors such as education and training have a greater impact on the perception and implementation of professional standards than experience alone. Research on accounting education finds that perception is less influenced by the number of years of work experience and more by professional competencies and exposure to international standards.

The lack of statistically significant differences between work experience groups may indicate that respondents perceived similarly, regardless of their level of professional experience [22].

Table 12 Average scores (2018 and 2026) of the four pillars in relation to compliance with the International Education Standards (IES). The scores show an overall upward trend over time. Personal Development increased by +0.22, from a low of 0.58 in 2018 to 0.80 in

2026. Similarly, Professional Accounting Education has a moderate increase from 0.67 to 0.74 with an increase of +0.07.

The analysis shows that:

1. Personal Development: Perceptions of this dimension increased from 0.58 to 0.80 (+0.22), indicating a significant improvement. This means that people have had more personal development, probably due to training in soft skills and generic competencies during the recent period.
2. Professional Accounting Education: The increase from 0.67 to 0.74 (+0.07) indicates less radical progress. Although professional education has enhanced perceptions, the slow pace denotes the need for more formal programs and effective implementation of accounting education standards [7, 11].
3. Professional Development: increased from 0.63 to 0.78 (+0.15) and is significant. This change indicates that professionals have been provided with more opportunities for professional development through training, mentoring, and international certifications [7].
4. Professional Competencies: This dimension increased the most from 0.51 to 0.75 (+0.24). This great progress is proof of the success of education policies and training programs that seek to develop professional accounting skills and practices.

Additionally, all four dimensions are increased, but Professional Competencies and Personal Development show the largest increases, up to 0.75 and 0.8/1, confirming the effectiveness of training policies. Moderate progress is a reminder to pay more attention to the quality and content of Professional Accounting Education.

Table 12. Average Scores for 2018 and 2026: Compliance with the International Education Standards (4 Pillars)"

Dimension (IES)	Implementation 2018	Implementation 2026	Growth (Δ)
Personal Development	Low (0.58)	Moderate (0.80)	+0.22
Professional Accounting Education	Moderate (0.67)	Moderate (0.74)	+0.07
Professional Development	Moderate (0.63)	Moderate (0.78)	+0.15
Competencies for Professional Auditors	Low (0.51)	Moderate (0.75)	+0.24

Comparing the data resulting from the 2018 study with the data analyzed in 2026 (in this study) and their update, we conclude that the greatest increase has been achieved by the professional development pillar and the professional competence development pillar, which shows a significant improvement, but also from the analysis of the updated IES which include ESG concepts, it results that perceptions can be improved by institutional policies, Continuous Professional Development (CPD) training and access to international practices regardless of the level of experience, see Figure 9. This finding highlights the

importance of organizational factors in the individual impact of work experience, which is consistent with existing literature [7, 11, 14, 25].

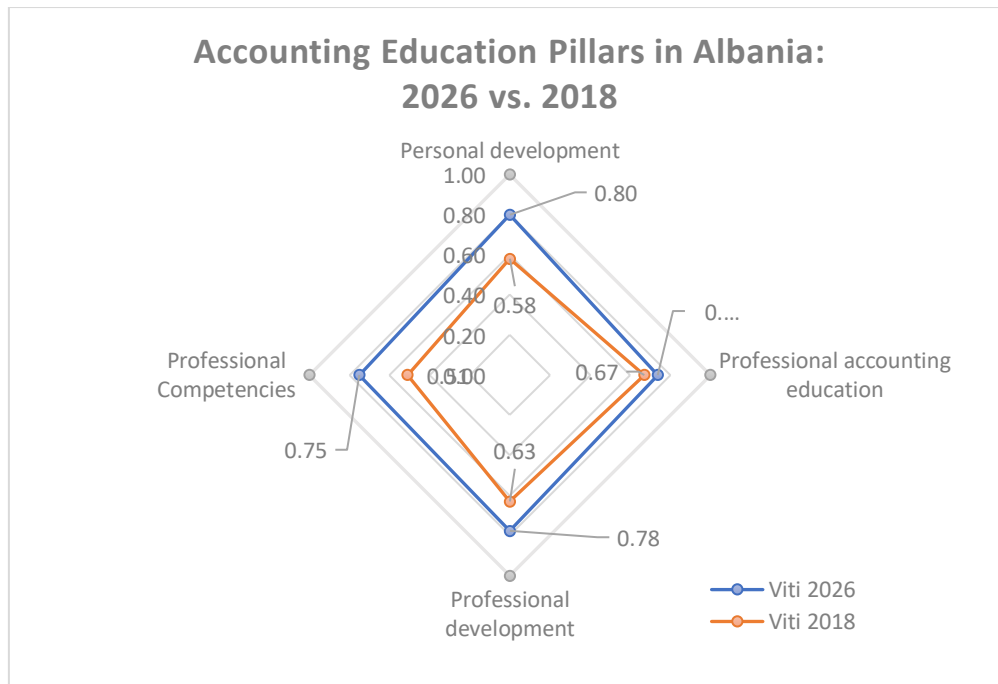


Figure 9. Comparison of the 4 pillars of accounting education in Albania: 2026 vs. 2018

DISCUSSION

The study findings provide important insights into the role of accounting education and professional standards in sustainability reporting. The positive correlation between the implementation of the IES and professional development supports the literature [16]. The limited influence of IES elements on attitudes towards sustainability reporting points to a significant gap between formal education and the demands of a changing labour market.

Another possible explanation for this finding is that sustainability reporting necessitates cross-disciplinary skills not included in traditional accounting frameworks. The IES provides a systematic model of technical knowledge, ethics, and professional development, but may not provide sufficient coverage of practical and contextual aspects of ESG reporting. This is consistent with prior findings that sustainability competencies are more impacted by analytical, critical thinking, and communication skills than by technical knowledge only [4].

The findings revealed no significant effect of professional experience on the perception of challenges in implementing the IES, contradicting the traditional assumption that experience automatically enhances professional competence. It also implies that experience alone may not be sufficient to deal with changing professional requirements without additional training and systematic learning in the context of the IES in accounting requirements.

The findings show the growing importance of international models of competency-based education with a focus on practical skills, flexibility and interdisciplinary understanding. In this sense, professional skills (IES 3) is an important factor. This means that the future of accounting education should be focused on more interactive, applied and skills-oriented methods.

The study contributes to the existing literature not only by providing a descriptive analysis of accounting education in the context of the implementation of IES in accounting but also by providing empirical evidence of the relationship between International Education Standards (IES), professional accounting education, professional competence development, and preparation for sustainability reporting in the Albanian context. The results suggest that the introduction of IES and professional accounting education are important in developing professional competencies, but their direct contribution to preparation for sustainability reporting is limited, despite the updated IES including ESG will come into effect in July 2026. This implies that conventional models of accounting education with a strong technical focus are insufficient to accommodate the interdisciplinary and strategic demands of ESG and sustainability reporting. The study confirms the need for an integrated approach to the development of professional competences, including formal accounting education, continuing professional development (CPD), professional skills, ethics, digital competencies and organizational support. Theoretically, the findings support the significance of Human Capital Theory and Institutional Theory in explaining the shaping of competency development by formal education, standards and the institutional environment, professional culture, and continuous learning processes. The paper is important for accounting education in developing countries as such as Albania, because it emphasizes the importance of the inclusion of ESG competencies, sustainability content, interdisciplinary learning and digital transformation in the study and training programs at the university and professional levels.

Findings from the study provide important insights related to the role of International Education Standards (IES) and professional accounting education in facilitating the development of professional competencies and sustainability reporting readiness.

The findings offer preliminary evidence of a significant and robust association between IES implementation and professional development consistent with previous studies [3, 14]. This result is consistent with previous literature that competency-based and standardized educational frameworks increase professional capability and adaptability. The International Federation of Accountants' framework (2019, 2021) defines IES as a systematic process for building technical competence, professional skills and ethical behavior. The strength of this relationship implies that standardized education systems are particularly effective in determining professional outcomes in developing economies where institutional frameworks are still evolving.

The results of the research show the positive and statistically significant influence of professional accounting education on the development of professional competencies. This

result is consistent with previous research on the importance of formal education for developing technical and transferable skills. The model has a high explanatory power ($R^2=0.638$) which indicates the dominance of formal education in the development of competencies, especially in structured training systems.

The results on preparedness for sustainability reporting are, by contrast, mixed. Overall, the regression model is statistically significant, but individual components of the IES have limited explanatory power. Technical competence and ethics are not very important. Professional skills (IES 3) are slightly important. This challenges the assumption that technical expertise will be sufficient to meet new professional demands.

Sustainability reporting requires cross-disciplinary skills beyond the conventional accounting frameworks. ESG report is a mixture of financial and non-financial aspects and it requires analytical thinking, communication skills and contextual judgment [6] lack of competency related to sustainability in accounting education.

This notion is confirmed by the current research which shows how the existing education systems do not mirror the intricacy of ESG reporting requirements.

The limited effect of IES components on readiness for sustainability signals a structural disconnect between education systems and labor market expectations. This is consistent with prior research that has identified a gap between academic training and professional requirements. The findings extend the existing literature by revealing that the gap is particularly discernible in the context of sustainability reporting.

The lack of a statistically significant association between professional experience and perceptions of IES implementation runs counter to the assumption that experience enhances professional competence. This is contrary to the assumption that experience automatically improves professional competence. Rather, it supports arguments for the greater importance of formal education and continuous professional development over experience alone. This result is consistent with the institutional perspective that the organizational and regulatory environments have a greater impact on professional behavior than individual experience. The results indicate that the skills of accountants are changing. New areas such as sustainability reporting require a broader set of competencies, such as critical thinking, communication and interdisciplinary knowledge. This is consistent with recent literature that points to the need of moving accounting education to more integrated and competency-based models.

This study contributes to the existing body of knowledge by empirically demonstrating that while International Education Standards enhance professional competencies, they are insufficient on their own to prepare for sustainability reporting in an emerging economy, thus highlighting the need for integrated educational and institutional reforms.

Theoretical Contributions

The study contributes to the literature on accounting education. First, it gives empirical evidence of the International Education Standards as a very important support in the development of professional competence in the accounting profession in Albania. Second,

the findings suggest that these standards will not be very effective in explaining perceptions of readiness for sustainability reporting, which indicates a large gap between traditional accounting education and the new sustainability requirements. Third, the study extends Human Capital Theory and Institutional Theory in relation to preparation for sustainability reporting. The findings are in line with Human Capital Theory. The findings indicate that the International Education Standards are an investment in professional knowledge and skills and are essential to the development of accounting professionals' competencies. Nevertheless, the weak effect of the IES on sustainability preparation indicates that investments in education alone might not be sufficient for the development of sustainability-related skills. From an Institutional Theory perspective, sustainability readiness seems to depend not only on individual competencies, but also on broader institutional conditions, such as regulatory requirements, professional expectations, organizational support and the level of maturity of sustainability reporting practices. The results indicate that sustainability readiness depends on human capital development and institutional support mechanisms.

Table 13. Comparison of results with previous international studies

Study	Context	Method	Main Findings
[26]	Australia	Survey	Accounting education positively influences professional competencies
[7]	International	Conceptual review	Sustainability reporting requires broader competencies than traditional accounting
[12]	International	Survey	Professional education improves competency development
[24]	International	Mixed Methods	ESG competencies require interdisciplinary training
Current Study (2026)	Albania	SEM	IES improves competencies, but has a limited influence on sustainability preparedness

The results of this study are consistent with previous international studies that have shown the positive contribution of professional accounting education to competency development. Many studies assume a direct transfer of competencies to sustainability-related outcomes, but the current results show that sustainability readiness is only weakly explained by traditional educational factors. This implies the need for a stronger integration of ESG-focused learning and sustainability-oriented professional development into accounting education systems.

SUMMARY AND CONCLUSIONS

This study provides empirical evidence on the role of International Education Standards (IES 2-7) in shaping professional competencies and perceptions regarding the preparation of professionals for environmental, social and governance (ESG) reporting in the accounting and auditing profession in Albania. Analysis according to the IFAC Global Accounting Education framework [42] and IES 1-8 standards shows that the implementation of international education standards is highly related to professional development outcomes.

The results also suggest that the direct effect of IES components on perceptions of preparedness for ESG sustainability reporting is weak. The overall model is statistically significant, but most of the individual components are weak in their explanatory power. Only professional skills treated in (IES 3) have a significant positive effect. Therefore, the ability to produce sustainability reports depends more on practical, communicative, and interdisciplinary skills than on traditional technical accounting knowledge.

Based on the analysis conducted, the results indicate that professional experience has no significant effect on perceptions of IES implementation. This finding shows that experience alone does not meet international standards, but it is continuous professional development and systematic learning environments that make the difference. The overall findings of the study indicate a partial disconnect between traditional accounting education frameworks and the evolution of sustainability reporting requirements, especially in the context of ESG integration.

The results show that IES and accounting education are relevant for the development of key professional competencies, although they are not fully aligned with the skills demanded by sustainability reporting practices. This points to the need to develop further competency-based models of accounting education that combine technical and transversal skills. The article provides empirical evidence on the role of International Education Standards (IES) and professional accounting education in the development of professional competencies and preparation for sustainability reporting in the Albanian context. The result showed that the implementation of IES is strongly associated with professional development, with a very strong and statistically significant correlation ($r = 0.890$). This result confirms the belief in the importance of international education standardization in the quality and uniformity of professional education in accounting and auditing. At the same time, professional accounting education turned out to be a significant predictor of the formation of professional competencies, explaining a significant part of the variance ($R^2 = 0.6377$). This underlines the importance of formal education and training programs for the development of technical and analytical skills of professionals. However, in terms of readiness for sustainability reporting, the results show a small impact of the IES components.

RECOMMENDATIONS

The model is statistically significant, but not all variables are significant, except for a positive trend in professional skills (IES 3). This indicates that the development of practical and interpersonal skills may be more important than technical knowledge in the context of sustainability reporting. Another important finding is that work experience does not have a statistically significant effect on perceptions of IES implementation. Experience alone will not guarantee better implementation of international standards. Structured education and ongoing professional development are important. The content of accounting education is far away from the changing needs of sustainability reporting, especially the combination of ESG concepts and interdisciplinary skills. This gap is a big challenge for the Albanian education system and for the accounting profession.

The study underlines the need for a strategic reorientation of accounting education and professional development. As accounting becomes more interdisciplinary, academic curricula and professional programs need to systematically incorporate sustainability reporting and ESG concepts. This implies a shift from the traditional knowledge-based model to a competency-based model that incorporates analytical, digital and communication skills. There is also a need for professional bodies to enhance their Continuing Professional Development (CPD) programs to include dedicated training for sustainability reporting and international standards. It appears that work experience does not help so it is important to invest in structured education and continuing training. The development of professional skills, in particular those related to group IES 3, seems to have a bigger impact on the perception of sustainability reporting. Hence, in the educational programs, more practical and experiential learning approaches such as case studies, simulations and interdisciplinary projects should be adopted. Greater collaboration among universities, professional organizations and the private sector is recommended to align education with the real demands of the labor market.

The results reveal that current accounting education frameworks meet the international standards, but are not fully prepared to deal with the increasing complexity of sustainability reporting. This means that reforms should not only address the compliance with the IES but also the integration of interdisciplinary and practice-oriented learning models. If such changes are not made, the gap between education and professional practice is likely to remain. The accounting profession's future will be shaped by how education and competency frameworks evolve to address the needs of sustainability and digital transformation. The empirical findings have a number of strategic implications for accounting education, professional bodies and policy makers. University and professional accounting curricula should be made more compatible with the new demands of sustainability reporting. In particular, ESG content needs to be systematically integrated into core modules on accounting and auditing, to prepare future professionals for new reporting frameworks and regulatory requirements.

More attention should be paid to the development of professional and transversal skills, in particular those identified within IES 3. These results suggest that these competencies

are relatively more important in determining preparedness for sustainability reporting than pure technical knowledge, which suggests a need for more applied and practice-oriented teaching approaches.

Strengthen and expand continuous professional development (CPD) programs with a focus on sustainability reporting, ESG frameworks, and practical application of international standards. Given that professional experience is not a significant factor in the perception of IES implementation, a structured lifelong learning is needed to ensure continuous professional adjustment. It is recommended that stronger collaboration between universities, professional accounting bodies, and employers should take place to bridge the gap between academic preparation and market demand. Such collaboration would be useful to integrate real-world case studies, applied learning, and industry-relevant competencies into accounting education. Future reforms should gravitate towards a competency-based education model that incorporates technical skills in accounting and digital, ethical, and sustainability skills. This change is necessary to ensure that accountants are not only compliant with international education standards in accounting but also face the challenges of today's financial reporting and environmental reporting. The development of accounting education should be a matter of compliance with International Education Standards, but also of a more dynamic and interdisciplinary framework that fully integrates sustainability, digital transformation, and professional adaptability.

LIMITATIONS AND FUTURE RESEARCH

Limitations of this research.

1. The findings may not be generalized to other institutional and national contexts, due to the use of convenience sampling and the relatively small sample (119 accounting and auditing professionals in Albania). The study uses self-reported survey data, which may lead to response bias and subjectivity in assessing competence and preparation for sustainability reporting.
2. The cross-sectional study design does not allow for the examination of temporal changes or causal relationships between variables.
3. The model explains a relatively low amount of variance in preparedness for sustainability reporting, which highlights the importance of other individual, organizational, and institutional factors not included in the model.
4. Finally, the study does not investigate possible mediating effects.

Additional research should examine the determinants of sustainability reporting preparedness using larger and more diverse samples, longitudinal designs, and additional institutional variables.

Theoretical Implications

This paper is based on the global accounting education model and the IFAC and GAE 2012 update, which provides a detailed analysis of standards compliance and comparability with other countries and data to be analyzed for Albania.

This paper contributes to the accounting education literature by adding Competency-Based Education Theory and Institutional Theory in the context of the International Education Standards (IES). The findings provide empirical support for the assertion that structured and standards-based educational systems are important for the development of professional competence, especially in developing economies.

The findings challenge the traditional knowledge-based approaches to accounting education since they suggest that neither technical skills nor ethical education is a sufficient predictor of sustainability reporting readiness. The most prominent dimension that emerged was professional skills (IES 3) indicating a move towards a more applied and skills-based competency framework. The study contributes to the literature on sustainability accounting by pointing out a structural gap between the current frameworks of accounting education and the requirements of ESG reporting. Preparing for sustainability requires a combination of traditional accounting skills and interdisciplinary and dynamic skills. The findings suggest that institutionally, the national and organizational contexts matter for the effectiveness of global standards such as the IES, and highlight the importance of institutional environments in translating international frameworks into professional outcomes in developing economies [37].

This study adds to the literature on institutional theory by providing empirical evidence from Albania on the mediating role of local contexts on the effectiveness of global standards such as the IES. This reflects the importance of institutional environments in shaping the effects of standardized education systems and contributes to the comparative literature on accounting education in developing economies.

It is also important to note that the curriculum analysis and accreditation processes were addressed in the previous doctoral research (2018). Therefore, this study will not return to curriculum design or content evaluation, but will focus on the effectiveness of implementation and professional competencies acquired in the accounting profession.

Future Research

Future research will extend the analysis to larger samples and more variables, such as organizational factors and the role of technology, in order to better understand the drivers of sustainability reporting preparation. The limitations of the current study will be overcome by using larger samples in Albania and a detailed analysis of other countries.

More in-depth knowledge will contribute to a more qualitative approach, such as interviews and case studies on how ESGs are understood and used by professionals, institutions and stakeholders. Future research could consider a broader set of variables, such as organizational culture, institutional support mechanisms and ESG-specific training, to account for the preparation of sustainability reporting.

Finally, future research should explore the potential mediating and moderating effects between IES implementation, professional competencies, and sustainability readiness to build a more holistic understanding of the mechanisms behind the outcomes.

The study focused on IES, professional education, and work experience, but did not focus on other factors, such as institutional support, organizational culture, and ESG-specific training.

The limitation is also related to the nature of the survey, which is subjective to the perceptions of the respondents. The temporal and economic context are a limitation, as the results are a reflection of the current situation in Albania, which may be different with changing international standards, professional education, and market demands.

Further research will test the generalizability of the results regarding the effect of IES and professional accounting education in international settings. Qualitative methods such as interviews and case studies can generate richer insights into the perceptions and experiences of the professionals. In addition, it would be interesting to study the impact of other factors such as institutional support, organizational culture and ESG training on the readiness for sustainability reporting. Such studies could be very useful in guiding the reform of accounting education curricula and policies according to current international standards.

Practical Implications

Universities and colleges need to move from a traditional knowledge-based curriculum to a competency-based curriculum with sustainability reporting and ESG concepts embedded in all courses. Technical competencies had little influence on sustainability preparation, showing that the current curriculum does not meet the changing professional demand. Professional accounting organizations should update their CPD programs to include interdisciplinary learning and real-world applications, and provide specific training on sustainability reporting, digital transformation, and analytical skills, and have real feedback from accounting professionals on the knowledge and competencies they gain from the training. However, professional experience alone has a limited impact on perceptions of IES implementation and therefore, structured and ongoing learning is an important mechanism for staying professionally relevant. The results show an increasing focus on professional skills like communication, critical thinking and problem solving. Education and training programs should adopt interactive and experiential learning approaches, such as case studies, simulations and project-based learning, to prepare professionals for the complexities and fluidity of reporting environments. More collaboration is needed between academia and industry to bridge the gap between education and practice. Working with professional organizations and bodies can also be used to embed real world ESG issues into academic curricula, better preparing graduates for the labour market. Developing economies policymakers should focus on adopting international standards like the IES and implement them effectively with institutional support, regulatory frameworks and investments in quality of education. Otherwise, the disconnect between formal education and professional practice will continue.

NOMENCLATURE

IFAC	International Federation of Accountants
IES	International Education Standards
IES 2	Technical Competence
IES 3	Professional Skills
IES 4	Professional Values, Ethics and Attitudes
IES 6	Assessment of Professional Competence
IES 7	Continuing Professional Development (CPD)
CPD	Continuing Professional Development
ESG	Environmental, Social and Governance
GAE	Global Accounting Education Framework
SEM	Structural Equation Modeling
EFA	Exploratory Factor Analysis
ANOVA	Analysis of Variance
KMO	Kaiser–Meyer–Olkin Measure
R ²	Coefficient of Determination
β	Regression Coefficient
p-value	Probability Value
α	Cronbach's Alpha
COMP	Professional Competencies
TECH	Technical Competence
PROF	Professional Development
ETH	Professional Ethics
PREP	Sustainability Reporting Preparedness
EXP	Professional Experience
DV	Dependent Variable
IV	Independent Variable
Ha	Alternative Hypothesis
H0	Null Hypothesis

AUTHORS CONTRIBUTIONS

Conceptualization, B.Z.R.; Methodology, B.Z.R. and M.M.; Software and Computational Modelling, B.Z.R., and M.M.; Validation, B.Z.R.; Formal Analysis, B.Z.R.; Investigation, B.Z.R., and M.M.; Resources, B.Z.R.; Data Curation, B.Z.R., and M.M.; Writing Original Draft

Preparation, B.Z.R.; Writing – Review & Editing, B.Z.R., and M.M.; Visualization, M.M.; Supervision, B.Z.R.

ACKNOWLEDGMENT

The authors sincerely thank all the participants who took part in the survey and generously contributed their time and insights. Their cooperation was essential for the completion of this research.

CONFLICT OF INTEREST

The authors declare no conflict of interest related to this publication.

REFERENCES

1. International Federation of Accountants (IFAC). International Education Standards. Available from: <https://www.ifac.org/education/about-accountancy-education> (Access date 5 February 2026).
2. International Federation of Accountants (IFAC). International Education Standards Development Framework. Available from: <https://ifacweb.blob.core.windows.net/publicfiles/2025-09/IFAC-IES-International-Education-Standards-Development-Framework.pdf> (Access date 5 January 2026).
3. Jackling, B., & De Lange, P. Do Accounting Graduates' Skills Meet the Expectations of Employers? A Matter of Convergence or Divergence. *Accounting Education*, **2009**, 18(4–5), 369–385.
4. Albuquerque, F., & Gomes dos Santos, P. A systematic literature review on the role played by sustainability matters in the educational environment. *Cogent Education*, **2024**, 11(1), 2–10.
5. Bebbington J., & Unerman J. Achieving the United Nations Sustainable Development Goals: An enabling role for accounting research. *Accounting, Auditing & Accountability Journal*, **2018**, 31(1), 2–24.
6. Unerman, Bebbington, J., O'Dwyer, B. *Sustainability Accounting and Accountability*, 2nd ed.; Routledge, **2014**.
7. O'Dwyer, B., Unerman, J. Shifting the Focus of Sustainability Accounting from Impacts to Risks and Dependencies: Researching the Transformative Potential of TCFD Reporting. *Account. Audit. Account. J.* **2020**, 33(5), 1113–1141.
8. DiMaggio, P.J., Powell, W. W. The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *Am. Sociol. Rev.* **1983**, 48(2), 147–160.
9. Yassin, M.M., & Toumeh, A.A. Innovative approaches to accounting education: incorporating business intelligence tools. *Cogent Business & Management*, **2024**, 11(1), 2414851.
10. Xhako, D., Hyka, N., Gjevori, A., Muda, V., Duro, C., Demirneli, M., Spahiu, E., & Hoxhaj, S. The Level of AI Application in University STEM Study Programs: A Comprehensive Review. *International Journal of Innovative Technology and Interdisciplinary Sciences*, **2025**, 8(4), 1244–1283.

11. Guthrie, J., Parker, L. D., Dumay, J., Milne, M. J. What Counts for Quality in Interdisciplinary Accounting Research in the Next Decade: A Critical Review and Reflection. *Account. Audit. Account. J.* **2019**, 32 (1), 2–25.
12. Nevi, G., Montera, R., Cucari, N., Laviola, F. Integrating AI and ESG in Digital Platforms: New Profiles of Platform-Based Business Models. *J. Eng. Technol. Manag.* **2025**, 78, 101913.
13. Ratinen, I., Kashani, J. S., & Linnanen, L. Challenges in modelling and measuring sustainability competencies crucial to successful sustainability transitions. *Environmental Education Research*, **2025**, 31(3), 548–565.
14. Jasni, N.S., Kamal, L.N. Data Literacy in Accounting Education: Pedagogical Strategies, Analytics Tools and Global Standards Alignment. *International Journal of Research and Innovation in Social Science*, **2026**, 10(26), 256–266.
15. Howieson, B. Accounting Practice in the New Millennium: Is Accounting Education Ready to Meet the Challenge? *Br. Account. Rev.* **2003**, 35(2), 69–103.
16. Zherri, F., Kalemi, F. Environmental Accounting in Albania: Challenges, Perceptions, and Factors Influencing Implementation. *Sustainability* **2025**, 17, 11319.
17. Mukherjee, A., Kamarulzaman, N. H., Vijayan, G., Vaiappuri, S. K. N. Sustainability: A Comprehensive Literature. In *Handbook of Research on Global Supply Chain Management*; Christiansen, B., Ed.; IGI Global Scientific Publishing, **2016**, pp 248–268.
18. Bisogno, M., Abate, F., Citro, F. Environmental and sustainability accounting, budgeting and reporting: a structured literature review". *Journal of Accounting Literature*, **2025**, 47(5), 270–299.
19. Borgonovo, A., Friedrich, B., Wells, M. *Competency-Based Accounting Education, Training, and Certification: An Implementation Guide*; International Development in Practice; World Bank: Washington, DC, **2019**.
20. Ciuhureanu, A. The Continuous Professional Development of Accounting Professionals and the Impact on the Valuation of Accounting Information. *Scientific Bulletin*, **2022**, 27(2), 93–101.
21. Ramaj, B.Z. The Integration of Artificial Intelligence in Advanced Management Accounting, Evidence from Albania and Implications for International Education Standards in Accounting. *European Journal of Social Science Education and Research*, **2025**, 12(4), 20–43.
22. Ramaj, B.Z. Core Model of Accountancy Education and Initial Professional Development in University - Level Programs in Albania. *European Journal of Multidisciplinary Studies*, **2022**, 8(1), 157–168.
23. Carvalho, C., Almeida, A.C. The Adequacy of Accounting Education in the Development of Transversal Skills Needed to Meet Market Demands. *Sustainability* **2022**, 14, 5755.
24. Abdo-Salloum, A.M., Al-Mousawi, H.Y. Accounting Students' Technology Readiness, Perceptions, and Digital Competence Toward Artificial Intelligence Adoption in Accounting Curricula. *J. Account. Educ.* **2025**, 70, 100951.
25. Sala, E. Descriptive Analysis of Cybersecurity Awareness Among Smartphone Users in Higher Education. *Journal of Transactions in Systems Engineering*, **2024**, 2(2), 222–234.
26. KPMG. Professional development for accountants. Available online: <https://home.kpmg> (accessed date 20 December 2025).
27. Coşkun, S., Yardımcıoğlu, M. An Empirical Research for the Determination of Variables Which Affect the Explanation Level of Accounting and Reporting Standards. *International Journal of Discipline Economics & Administrative Sciences Studies*, **2017**, 3(4), 294–304.

28. Cho, C. H., Costa, E. Sustainability Accounting Education: Challenges and Outlook. *Int. J. Sustain. High. Educ.* **2024**, 25(7), 1412–1425.
29. Coşkun, S., Coşkun, S., Yavuz, İ. Fifty Years of Accounting Education Research: Global Trends and Insights from Bibliometric and Thematic Analysis. *SAGE Open* **2026**, 16(1), 1-23.
30. International Accounting Education Standards Board. *Proposed International Education Standard 7: Continuing Professional Development (Revised)*; International Federation of Accountants (IFAC): New York, NY, **2017**.
31. Cerqueira Lima, H., & Augusto Sampaio Franco de Lima, G. Professional skills development in introductory accounting education: insights from Brazil and International Educational Standards (IES). *Accounting Education*, **2025**, 34(5), 673–703.
32. Handoyo, S., Anas, S. Accounting Education Challenges in the New Millennium Era. *J. Account. Audit. Bus.* **2019**, 2(1), 35–46.
33. Othman, R., Ameer, R. Rethinking accounting education for a sustainable future: charting a course for sustainable development goals 2030. *Meditari Accountancy Research*, **2024**, 32(5), 1809–1836.
34. Stringa A., Shehu M. A Systematic Mapping Review of Employability Skills and Their Relevance to the Labor Market, *Journal of Integrated Engineering and Applied Sciences.* **2026**, 4(1); 270-285.
35. Ghani, N.A., Teo, P.-C., Ho, T.C.F., Choo, L.S., Kelana, B.W.Y., Adam, S., Ramliy, M.K. Bibliometric Analysis of Global Research Trends on Higher Education Internationalization Using Scopus Database: Towards Sustainability of Higher Education Institutions. *Sustainability* **2022**, 14, 8810.
36. Ionescu-Feleagă, L. et al. Accounting education and sustainability reporting among prestigious European universities, *Amfiteatru Economic*, **2025**, 27(70), 810-829,
37. Alshareef, H.R., Emeagwali, O.L. Business Intelligence Capabilities and SME Innovation: The Mediating Role of Knowledge Management Capability and the Moderating Effect of Data-Driven Decision Making. *Systems* **2026**, 14, 339.
38. Fogarty, T. J., Campbell, C. The Big Data Crossroads: Accounting Education and the Challenge of 21st Century Technology. *J. Account. Educ.* **2024**, 68, 100908.
39. Kavanagh, M.H. and Drennan, L. What skills and attributes does an accounting graduate need? Evidence from student perceptions and employer expectations. *Accounting & Finance*, 2008, 48, 279-300.
40. Alexandre dos Reis Cardillo, M., Basso, L.F.C. Revisiting knowledge on ESG/CSR and financial performance: A bibliometric and systematic review of moderating variables. *Journal of Innovation and Knowledge* **2025**, 10(1), 100648.
41. PAN, Gary and SEOW, Poh-Sun. Preparing accounting graduates for digital revolution: A critical review of information technology competencies and skills development. *Journal of Education for Business* **2016**, 91(3), 166-175.
42. Karreman, G.H., Kuijl, J. G., Marrian, I.F.Y., Verweij, A.M. Dynamics of Global Accountancy Education; Association of Chartered Certified Accountants (ACCA): London, **2012**.