Migration Letters

Volume: 21, No: 5, pp. 1094-1110

ISSN: 1741-8984 (Print) ISSN: 1741-8992 (Online)
www.migrationletters.com

Challenges of University Accounting Education for North Ecuadorian Microenterprises

Gloria Esperanza Aragón Cuamacás[1]

Abstract

The present manuscript corresponds to the Research Project: "Analysis of University Accounting Education for Microenterprises of Ibarra" executed by the Technical University of the North of Ecuador, to analyze the challenges of university accounting education towards business support, because the strengthening of teaching-learning For future public accountants it is essential, with quality educational participation in the new digital age. This study followed the exploratory, descriptive and correlational methodological order, used field techniques and the design of two questionnaires, with the census applied to 83 accounting students and the survey directed to 40 microentrepreneurs. The results of the study, through the processing of statistical information, allowed the confirmation of educational progress towards quality and innovation, with the level of student satisfaction: acceptable 36.10%, very acceptable 31.30% and excellent 7.20%, about educational challenges in accounting; Likewise, the pronunciation of microenterprises reached 47.50% of acceptable opinion about the challenges faced by new accounting professionals. These results enliven the will and perseverance towards innovative educational contributions, with revision of academic programs and plans, with constant educational improvements, in accordance with the new challenges of modern industry 5.0.

Keywords: *accounting education; challenges; innovation; university.*

Introduction

Harmonization in accounting education is framed in globalization and its need to respond to existing requirements throughout the world, because compliance in the field of action of finance and accounting governs all areas of economic development. world. Thus, the challenges in the current financial educational field entail the analysis of the importance of Education in Collaborative Networks (ECN), to achieve innovative capabilities, not only with educational strategies, but with other actions, to achieve the strategic alignment of the community professionals who already produce innovative solutions (Jordi, Mireia, & Joan, 2013). Because the benefits of education transcend the individual sphere, because they are present in the home and in the development of society, with significant external contributions to economic growth and innovation (García, Faura, & Lafuente, 2023).

In this sense, accounting professionals must be able to face the challenges of the world that is constantly changing (Ospina Hernández, 2022, page 24). Because the effort to learn more about international standards, harmonize and adapt national and regional legislation in the context of education (Casado, Zabaleta, Ainhoa, & Lezcano, 2023), is of interest in all countries, because the conjunction in the International training standards allow for better communication in the conduct of these standards, with the relevant skills

[1] Universidad Técnica del Norte

and attitudes (Alegre & Kwan, 2022), with the strengthening of educational competencies and the development of new strategies to form collaborative learning networks. three-dimensional, so that students actively participate in developing educational projects to develop their entrepreneurial abilities.

In the educational context, university reflection focuses on updating curricular designs, programs, content and academic approaches that link theory and practice with long-term actions (Jalagat & Aquino, 2023). Because the academic community must break all old paradigms and continually frame itself in globalization. Thus, companies take on challenges in their core structure, learning as a fundamental process in all human talent, because the challenge in all areas is learning to unlearn, which involves learning to learn within society, which springs from multidimensionality of being in being. (Colina & Albites, 2020). Because innovation exhausts its nature and its tasks in doing new things (Escudero, 2014) and by legal imperative, we fight so that university invention is identified from the perspective, the technical, reflective and critical approach with its individual, institutional and social levels.

In this way, innovation in the actions of future professionals entails a series of pressures and challenges, given the multiple problems and risks that exist due to: the economic and political crisis, physical and digital insecurity, fraud, fiscal and financial obstacles. , climatic detriment, geophysical uncertainty, mass density, inequality, social exclusion, thus it remains to be known the result of culture and gender with university students (Souza, Ferreira, Veiga Simão, & Falla, 2022) and the others problems that are voiced in the public sphere with countless individual and business cases pending resolution. Thus, the horizon of service-learning opens towards the triangle of synergistic collaboration of students, society and teachers. (Espinosa, de Arriba, & Font, 2023). With the development of collaborative projects with action research principles and practices, where creativity shines to strengthen the Schoolweavers tool for the transformation of the educational ecosystem (Mireia, Moisés, & Jordi, 2023). Because educational work with project-based learning favors student research to provide an insightful solution to the problem in situational reality (Martínez Sanz, 2022). By executing the design and implementation of Digital Learning Experiences (DEL) in Digital Spaces (DS), as the systematized subject that considers the historical lessons learned to respond to the uncertainties of the digital future. (Bough & Martínez, 2023).

Therefore, it is essential to analyze the challenges of university accounting education on the contributions of students towards the solution of organizational needs, through the reflection of education in accounting and auditing according to the relevance of action, according to practical requirements. of the work environment, considering the new challenges of industry 5.0, which promotes the preparation and continuous training of students, through innovative accounting education, with a constructive critical sense, with diligence and quality, with mastery of

Literature review

The challenges in educational innovation imply high responsibility and academic commitment at a universal level, with the effective enhancement of “the university organizational image, through the operation of an HEI, for the students and staff of this type of organizations.” (Pérez & Torres, 2016), because innovative educational changes are reflected with the result of the practical action of new professionals, where business employers in the contemporary world are applying accounting operations with high financial demands, according to the rapid changes happening around the world. In this sense, the relevance of accounting action is reflected from the academy to the company, through the execution of innovative educational programs and plans for students, according to the requirements and principles of the accounting profession, with knowledge of the current accounting standards, basic postulates and computerized

accounting packages. Because, the new online accounting practices also contribute to providing effective responses with innovative solutions, always coupling the "traditional structure of the entity." (Albuquerque, Quirós, & Justino, 2016, page 281).

Because, in the International Training Pronouncements (IPF), the effective method for the development of professional skills was detailed, because with the reduction of universal differences in performance requirements, global mobility was facilitated, with reference points. international on good practices for vocational training (IFAC F. I., 2019). To propose new ways to strengthen accounting education and the skills of a public accountant, to respond to the needs and requirements demanded by organizations, the State, families and the community in general. (Aguilar, Ceballos, & Andrade, 2015, page). Given that security is a process of continuous improvement (AEC, 2022) in organizations, which need to undertake new challenges, to combat risks and apply adequate internal control, because "the loss of control and The direction of decisions can lead to changes in perspectives that positively or negatively affect organizational interests. (Guevara, Pulgarín, & Gaviria, 2023).

The first attempts at globalization of accounting education occurred in the 90s (IFAC, 1996), when the International Federation of Accountants showed international education guides and the Curriculum worldwide. for the training of accounting professionals, the same one that was proposed by the United Nations Conference on Trade and Development of the United Nations (UNCTAD), (ISAR 5 and 6, 1999), of which (Vásquez 2002) took as a reference, to express the minimum requirements to take into account in professional education, because (IFAC F. I., 2023) continues to support control entities in developing countries, through accounting progress and scientific knowledge, to reflect in graduates the professional development, based on the strengthening of competencies in the technical education profiles, with special skills, in accordance with the contents of general education, with practical experience, training, competency exams and professional values namely (López Sánchez, 2013).

Strengthening Higher Education

Higher Education Institutions (HEIs) need the permanent review of curricula, study plans and the delivery of teaching based on a model (Dimartino, Boff, & Barbei, 2021) that allows identifying the strengths, from the different alternatives to teach classes; because the transition from financial accounting for decision making moves towards integrated accounting for sustainability, proposing alignment with the fulfillment of goals and the application of global sustainability standards (GSSB, 2023); with the use of standardizing practices and those that facilitate understanding and articulated dialogue with the different groups and organizations where the activities are taught. (Sánchez, 2022).

Because professional accounting education contributes to organizations and businesses, with the control of economic figures and business management strategies towards prosperity, growth and innovation. In this way, Accounting Education is the cornerstone of training, with learning mechanisms, and with authorized facilitators, who develop the intellectual, moral and emotional capacity of future public accountants, generating in them the required competencies to comply with the social and professional commitment (Ospina H. G., 2022), then, participatory education and accounting practice must be evident in the exit profile of the students, contributing effectively with professional advice, with creativity and constructive exercise, to solve the requirements in public and private entities.

Challenges of Accounting Education

In this sense, innovative educational development is strengthened with collaborative projects with action research principles and practices, with creativity to strengthen the Schoolweavers tool for the transformation of the educational ecosystem, (Mireia, Moisés, & Jordi, 2023) with the application of new strategies to form collaborative learning

networks, where students actively participate in innovative education projects, in ECN (Education in Collaborative Networks) to achieve innovative capabilities, with strategic alignment, beyond common educational strategies, because the professionals inserted in the community already produce innovative solutions (Jordi, Mireia, & Joan, 2013), which contribute to educational internationalization.

Since the teaching-learning process requires continuous preparation and updating, following the plan with discipline and attention (Sarría, Gómez, & Granda, 2021); interacting with the media, through focused attention to the continuous changes in the accounting educational field, where a responsible review of the curriculum, guidelines and new teaching strategies is conducive, which motivate the fervent spirit of the students to achieve the results. Because the adoption of innovative strategies encourages action, so that environmental management is raised, reflecting sustainability in the study plans, showing the scientific and technological competencies in accounting students, in relation to the field of STEM disciplines (science , technology, engineering and mathematics) and the use of digital tools and scientific arguments in three dimensions: inquiry, modeling and argumentation, for the approach of the dimensions of STEM practice, with access to experimental data (López, Couso , & Simarro, 2020). Because the use of technological accounting programs is essential (Zhang, 2023) to achieve the results and the incorporation of big data that could be beneficial when examining global accounting issues.

Identification of problems in accounting education

Automated programs and packages make it possible to speed up and simplify the innovative accounting response action, but they also merit analyzing their high cost, which entails the interest of the administration, in the successful and integrated implementation of these, to achieve the objectives of the institution; However, the mere investment in IS (Information Systems) and in new management tools does not guarantee the improvement of business results (Lee,2012; Pérez and Machado,2015), so the academy needs to deepen the knowledge of the explanatory factors of the success of these SIs and their impacts within companies. (Almazán, Tovar, & Quintero, 2016). Because in the report by (Elamer, 2019), mentioning Albrecht and Sack (2000), it was indicated that accounting educational modules continue to have too limited a focus on the development of skills according to the curricula.

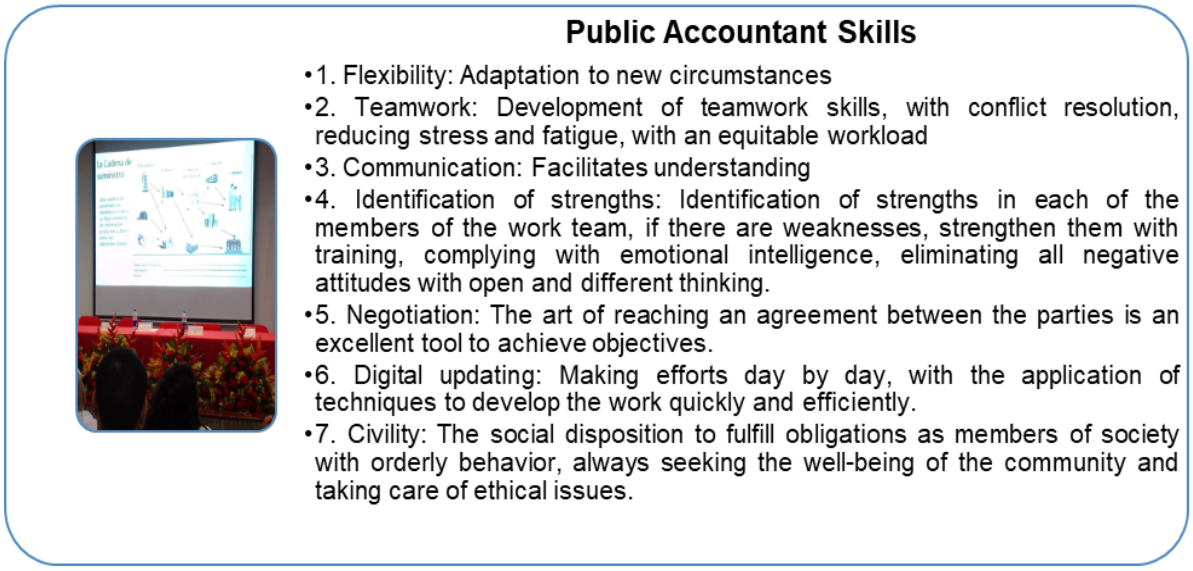
In the workplace, professionals are required to provide effective responses to social needs, therefore, a changing educational environment is conducive, analyzing the impact on curriculum planning, so that teachers provide satisfactory student care. according to the student demands of the classes they teach daily. (Villiers, 2010). Although the increase in academic activity during the pandemic affected university teachers (Sangster, Alan; Stoner, Greg; Inundación, Bárbara), new opportunities also opened up to teach learning activities, creating new spaces for accounting educational research. However, despite many educational efforts, an acceptance of services with efficiency and quality has not yet been achieved, where the social remuneration of new professionals is notable, to resolve the needs of the environment, because in many cases, accounting graduates still find breaks, to be economically active, knowing the unemployment rate that in October 2022 was 4.1% according to (Censuses, 2023).

Because one of the latent problems in organizations is the lack of an inclusive and collaborative culture (González Falcón et al., 2022), and to solve these difficulties, adequate planning, group participation, the development of ventures, problem solving and communication development; because the economic advancement and growth of countries is supported by permanent innovation, the generation of new companies, the creation of jobs, new markets, new skills and professional capabilities, efficiency in the management of credits and tax payments. futures, the stimulation of economic activity and business competitiveness (García & Díaz, 2018).

Accounting skills

Above all, the self-preparation and initiative of public accounting students is important, which has an impact on the strengthening of their professional training, because the public accountant needs to be updated according to the demands of Industry 5.0. and 4.0, with "Public Accountant Skills.

Figure 1 Public Accountant Skills



Source: (De la Fuente Molina, 2023, page 2)

Because accounting education becomes effective in the business environment, with work practices, according to the characteristics and requirements of the entities, because the strengths of action allow the transformation and generation of new results in entrepreneurial processes from the preparation, establishment, structure, bonanza, results and feedback; because public organizations are part of the ecosystem and changes in the administrative structure of the government lead entities to seek to adapt to the changing environment on their own (Bernardo & Isabella, 2022), because in the economic activities they carry out, in many cases, decision-making must be made quickly, using the best information available (Eliza & Carolina, 2022).

According to the needs of the environment and the academies that undertake the verification of the programs, to improve the accounting educational practice, paying attention to the management of cryptocurrencies, because in training, professionals must be prepared, according to the demands of the current market. (Ordóñez, 2021).

Therefore, the accompaniment and monitoring of education professionals is essential, with comprehensive guidance and participation of young people, so that they develop the skills and competencies towards an independent life, using an appropriate work plan for tutoring (Sevillano Monje & Sanz Escutia, 2022), for the exhaustive attention and active participation of students, to strengthen skills and competencies because future accounting professionals need to be familiar with accounting education in accordance with current reforms and beyond the standards of professional practice, to provide the result, according to the ethics of the public accountant and the reflection on the requirements that society proposes to them. (Grajales & Usme, 2022). In this way, the effectiveness of financial information and professional practice depends on the understanding of the purpose itself, within the framework of the paradigm of usefulness in the decision, which marks the social meaning of the profession. (Romero, 2022).

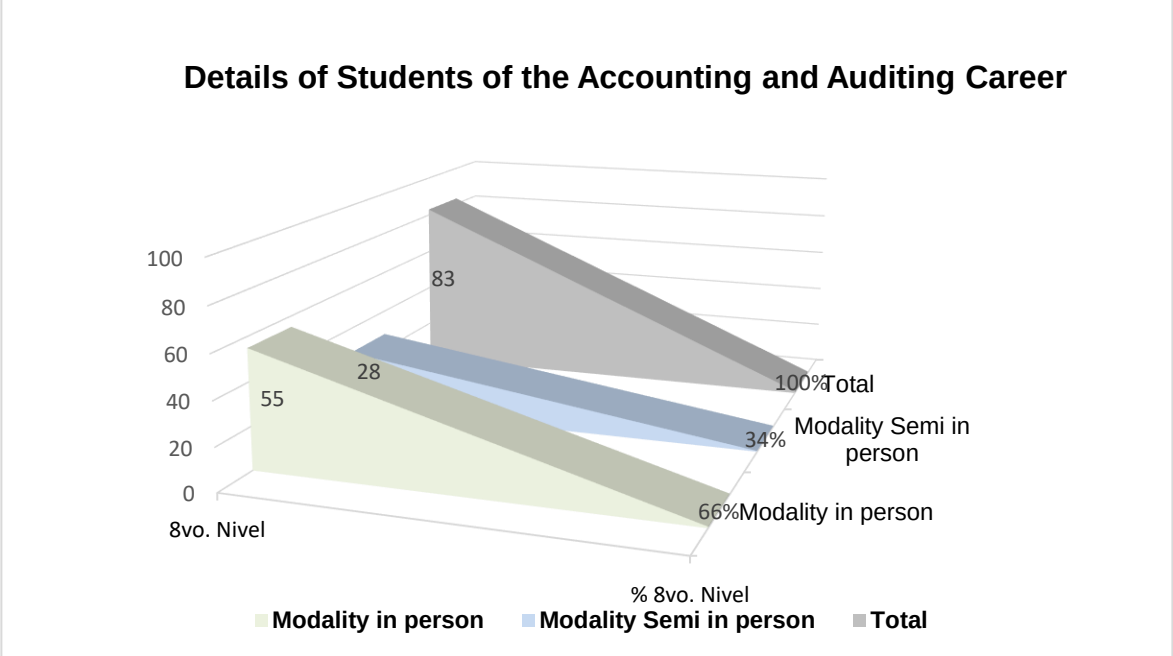
To solve the problems that companies, academic entities and students are going through, it is therefore important to have the support and correspondence of four-party collaborative

action, promoting quality university research, to counteract the multiple problems that arise in the environment (Yuzzelli, 2018).

Investigation methodology

The present study was based on the exploratory-descriptive research methodology, with the statistical method, so that the data collection procedure included the analysis of illustrated supports and obtaining reports for the selection of the population and sample. The study is based on the design of question questionnaires to collect information from students and microenterprises, with the aim of obtaining information necessary for the application of the field study. Therefore, 2 structured question questionnaires were designed and applied to carry out the census of the population of 83 students and the survey directed at organizations, with the "approach resulting in a target sample" (Gozal, 2023) of 40 microenterprises selected according to the sample size, once the data was obtained, the information was processed in the SPSS statistical program for the validation and presentation of the analysis of the results. The opinion of 83 students who were in the last stage of their professional career and the versions of 40 microentrepreneurs selected according to the sample size were obtained. The exploration of field work aimed at students about educational challenges reached the acceptable level of 36.10% of educational contribution of the student population; while, the micro business opinion on accounting educational challenges reached 47.50% acceptance.

Figure 2 Students majoring in accounting and auditing



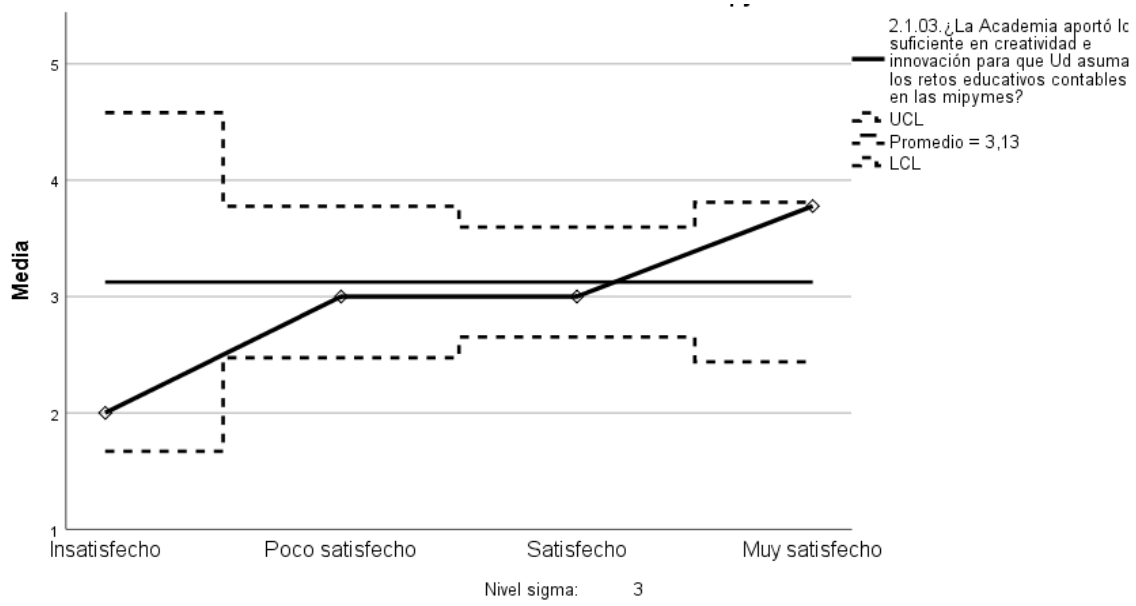
Analysis of Results and Discussion

Through the application of the research methodology, the results processed in the SPSS statistical program were obtained, with the reflection of opinion of the challenges of accounting education and the level of acceptance in micro business action based on the perspectives of education. accountant. Because the transcendental function of the teacher implies obtaining better proposals for students (Casero Béjar & Sánchez Vera, 2021) for the development of suitable resources that allowed learning to be strengthened during the pandemic. Because knowledge and the construction of new ideas contribute each time to the fulfillment of goals (Rosero & De La Ossa, 2022), because the development of abilities and skills in people strengthens the educational culture with the teaching intervention, facilitating teaching and learning, always awakening interest, self-

preparation and the desire to improve with one's own initiative. (Zambrano-Murillo & Chávez-Loor, 2022). In accordance with international training pronouncements, with awareness of the relevant educational duty.

The statistical contributions are elementary, because their tools allow the control analysis to be carried out regarding the steps that are followed, to determine the points of attention to make the respective improvements, therefore for this investigation the statistical control chart was first used to verify the degree of contribution and attention to educational challenges, according to the results of the applied study, as detailed in Figure 3, educational support for organizations is identified at a medium positive level, with references of attention to innovation and improvements accounting education.

Figure 3 Control chart of the academic contribution in creativity and innovation to take on accounting educational challenges in organizations



Note: Obtained from the results base processed in SPSS

Because educational strengthening in academies is important, with creativity and innovation to take on the accounting educational challenges in organizations, since they need the educational support of teaching and learning, through the resolution of problems, to achieve the best achievements in the field. of business, because students increase their skills, developing creativity and innovation, for the accounting practice of organizations.

Analysis of microenterprises

To verify the study, the analysis of descriptive statistics was applied, applying the control tests and the selection of questions from the total number of items applied, to analyze the correlation of variables that entail the accounting educational contribution and are shown in Table 1.

The correlation process of the most significant questions found a positive association in variable 2.1.03. in relation to variable 3.1.03 referring to teaching-learning and academic management, since the (IES) are responsible for encouraging educational innovation to offer society professionals duly prepared and trained for job performance, emphasizing the relevance of educational action with the implementation of strategies according to the needs of the organizations.

Table 1 Correlation of variables on educational challenges, perspectives, educational strategies and accounting innovation in microenterprises

Correlations							
Items		2.1.01.	2.1.02.	2.1.03	3.1.01	3.1.02.	3.1.03.
2.1.01.Rate what is the impact of your accounting education on business?	Correlation de Pearson	1	,506**	,397**	,599**	,640**	,591**
	Sig. (unilateral)		0	0,006	0	0	0
	N	40	40	40	40	40	40
2.1.02. Are the perspectives of accounting education met in microbusiness actions?	Correlation de Pearson	,506**	1	,375**	,301*	0,261	0,198
	Sig. (unilateral)	0		0,009	0,029	0,052	0,111
	N	40	40	40	40	40	40
2.1.03. Did the Academy contribute enough creativity and innovation for you to take on the accounting educational challenges in microbusiness?	Correlation de Pearson	,397**	,375**	1	,381**	,461**	,429**
	Sig. (unilateral)	0,006	0,009		0,008	0,001	0,003
	N	40	40	40	40	40	40
3.1.01. Do you rate the teaching you received as relevant and innovative for your microenterprise?	Correlation de Pearson	,599**	,301*	,381**	1	,631**	,550**
	Sig. (unilateral)	0	0,029	0,008		0	0
	N	40	40	40	40	40	40
3.1.02. Rate your level of teaching-learning received from the academy and its management?	Correlation de Pearson	,640**	0,261	,461**	,631**	1	,826**
	Sig. (unilat	0	0,052	0,001	0		0

	eral)						
	N	40	40	40	40	40	40
3.1.03. Rate your agreement with the accounting educational strategies you received?	Correlation de Pearson	,591**	0,198	,429**	,550**	,826**	1
	Sig. (unilateral)	0	0,111	0,003	0	0	
	N	40	40	40	40	40	40

**The correlation is significant at the 0.01 level (one-sided).

*The correlation is significant at the 0.05 level (one-sided).

Note: Obtained from the results base processed in SPSS

The analysis of the descriptive statistics, on the educational challenges, was framed in 47.50% of good positive opinion, because reference was made to the innovative organizational strength, to take into account in the development of learning, which aims to provide answers effective in the financial needs of organizations; Likewise, 15% of very good contribution and 12.50% of excellent contribution, these references are the result of the organizational opinion that also presented the recommendations with 22.50% of regular opinion, also considered 2.5%. minimum contribution, which recommends the practical and communicative participation of learners, with collaborative action and incentive in pre-professional practice in microenterprises.

Table 2 Academic contribution in creativity and innovation to take on accounting educational challenges in organizations

Rating	Description	Frequency	Percentage	Valid percentage	Accumulated percentage
Valid	Deficient	1	2,5	2,5	2,5
	Regular	9	22,5	22,5	25,0
	Well	19	47,5	47,5	72,5
	Very good	6	15,0	15,0	87,5
	Excellent	5	12,5	12,5	100,0
	Total	40	100,0	100,0	

Note: Obtained from the results base processed in SPSS

Because the analysis of the micro-business and student information allowed us to analyze the actions of organizational management, with attention to the perspectives of accounting education presented in Table 3, which when verifying the available information, it was reported that 25% of the participants, reflected their good opinion

about their level of educational contribution, because in their statements they highlighted the new alternatives on accounting education strategies, with the resolution of problems that allow them to achieve the support of practical activities according to organizational needs; In the same sense, 22.50% had a very good contribution, and 20% had an excellent opinion; while 32.50% of regular contributions noted their suggestions of the need to constantly innovate educational processes, to meet organizational expectations and requirements.

Table 3 Act microbusiness with perspectives of accounting education

Rating	Description	Frecuency	Percentage	Valid percentage	Accumulated percentage
Valid	Regular	13	32,5	32,5	32,5
	Well	10	25,0	25,0	57,5
	Very good	9	22,5	22,5	80,0
	Excellent	8	20,0	20,0	100,0
	Total	40	100,0	100,0	

Note: Obtained from the results base processed in SPSS

Also the micro business versions, on the achievement of competencies for professional performance, indicated in the processing of achieved results, identifying 25% of good positive opinion, likewise 17.50% of very good opinion and 32.50% of excellent performance, with responses of acceptability and satisfaction for the services received from professionals immersed in the financial area of organizations, but 25% of participants also spoke about the importance of handling and mastering computer packages and software used in financial management.

On the other hand, the development and conformity of accounting educational strategies, according to the study, reached 35% of good positive opinion, because entities need technical analysis, in the same way 22.50% of very good contribution and 22.50 % of excellent contribution, since the degree of accounting educational contribution in this sector has the acceptability of the academy graduates who have contributed to the development of their objectives, but the remaining 20% of qualification specified the importance of the application of the new mechanisms and the use of accounting support instruments, compliance with regulations and other data, to reflect the respective responses to the organizational offer, in order to achieve effective and practical training for new professionals, to always be framed in quality education with relevance and innovative action.

Analysis of students

The opinion results of 83 students who were processed according to the statistical method, made it possible to know the contribution to the educational challenges that the academy carries out, in order to develop the skills in the students, because the correlation analysis applied with six elementary items of the study, determined the degree of positive contribution to the educational challenges of the students, who are satisfied with the evolution of the current educational system and their assertions are framed in remaining attentive to the involvement of advanced studies, in such a way that they demonstrate their strengths with the skills and abilities in accounting practice, to actively contribute to organizations. Because students are the support of practical economic development and the fulfillment of the institutional mission to strengthen strengths, they start with training,

self-education, training and constant preparation, based on the latest technological advances.

Table 4 Correlation of variables on educational challenges, perspectives, educational strategies and accounting innovation in students

Correlations

Items		2.1.01.	2.1.02.	2.1.04.	3.1.01.	3.1.05.	3.1.13.
2.1.01. Rate the impact of your current accounting education and its influence on microbusinesses	Correlation de Pearson	1	,617**	,483**	,567**	,582**	,478**
	Sig. (unilateral)		0	0	0	0	0
	N	83	83	83	83	83	83
2.1.02.Rate your level of satisfaction with the current university education system	Correlation de Pearson	,617**	1	,614**	,690**	,578**	,424**
	Sig. (unilateral)	0		0	0	0	0
	N	83	83	83	83	83	83
2.1.04. Did the Academy contribute enough creativity and innovation to take on the challenges in accounting education in microbusinesses?	Correlation de Pearson	,483**	,614**	1	,610**	,551**	,302**
	Sig. (unilateral)	0	0		0	0	0,003
	N	83	83	83	83	83	83
3.1.01. Rate the level of relevance in the teaching that the University has given you	Correlation de Pearson	,567**	,690**	,610**	1	,684**	,526**
	Sig. (unilateral)	0	0	0		0	0
	N	83	83	83	83	83	83
3.1.05. Rate your agreement with the teaching accounting educational strategies	Correlation de Pearso	,582**	,578**	,551**	,684**	1	,506**

taught	n						
	Sig. (unilateral)	0	0	0	0		0
	N	83	83	83	83	83	83
3.1.13.Rate your level of commitment to educational advancement	Correlation de Pearson	,478**	,424**	,302**	,526**	,506**	1
	Sig. (unilateral)	0	0	0,003	0	0	
	N	83	83	83	83	83	83

**The correlation is significant at the 0.01 level (one-sided).

*The correlation is significant at the 0.05 level (one-sided).

Note: Obtained from the results base processed in SPSS

On the other hand, the questions posed to the university students allowed us to know the high positive accounting impact, with educational relevance because the work practice and perspectives had the contribution of 45.80% of good grades, likewise 19.30% of those surveyed identified with the perspectives of very good work practice and 4.80% with an excellent opinion; while 25.30% of regular opinion expressed the need for the application of accounting systems, which allow training and accounting action, with 4.80% of minimum opinion that is interested in developing work practice focused on educational perspectives. accountants to complement their skills on the journey from accounting education towards innovation.

Regarding the academic contribution in innovative student accounting education to take on accounting educational challenges, it was analyzed that there is 7.20% of excellent grades, 31.30% of very good scores and 36.10% of good grades of the students, because they reflected the expectation of strengthening their capacities to take on new educational challenges, with creativity and innovation, because the purposes of higher education in today's world are framed in breaking physical information barriers, to continually fit into the new era digital, therefore, new professionals need to be sufficiently trained to perform their role in the field of economic, financial and sustainability action; On the other hand, it is also essential to analyze the opinion of the 20.5% regular grade and the 4.80% minimum opinion, the same ones that alert the academic field to the review of the study plans, which must be framed in innovation for higher education, in topics related to the financial area, to be in expectation of the requirements that revolve in the environment of the business wheel, as well as attention to the application of teaching strategies framed in research, in such a sense that they contribute innovative content for the training of students.

Table 5 Contribution of the academy in creativity and innovation to take on challenges in accounting education for microbusinesses

	Rating Description	Frecuency	Percentage	Valid percentage	Accumulated percentage
Valid	Deficient	4	4,8	4,8	4,8
	Regular	17	20,5	20,5	25,3
	Well	30	36,1	36,1	61,4
	Very good	26	31,3	31,3	92,8
	Excellent	6	7,2	7,2	100,0
	Total	83	100,0	100,0	

Note: Obtained from the results base processed in SPSS

In response to the teaching received, 38.60% of the students indicated the importance of joint involvement to achieve excellent teaching-learning. Likewise, 44.60% of accounting students noted their agreement with the educational experiences, in the teaching-learning process provided by the academy, so that the teaching received and the updating of information allowed them to have the support for professional practice.

The results indicate that students are satisfied with the educational strategies that support their future accounting profession, because their level of excellent acceptance reached 8.40% grade, likewise the very good opinion obtained by 37.30% student acceptance, and 44.60% of good qualifying contribution, indicating the importance of educational innovation with the strengthening of digital skills, to achieve the proposed accounting education goals, but to these results the 9.60% of regular contribution was also added , due to the increase in academic tasks and low student motivation that the informants mentioned.

Table 6 Accounting educational strategies

	Rating Description	Frecuency	Percentage	Valid percentage	Accumulated percentage
Valid	Regular	8	9,6	9,6	9,6
	Well	37	44,6	44,6	54,2
	Very good	31	37,3	37,3	91,6
	Excellent	7	8,4	8,4	100,0
	Total	83	100,0	100,0	

Note: Obtained from the results base processed in SPSS

In this way, the analysis of the responses, referring to the challenges of university accounting education, encourages learning and permanent self-education with adaptation and firmness, in the face of any adverse situation that has to be faced, applying equitable participation, where adequate communication is reflected. , with digital training in automated systems and the development of critical and reflective thinking, with availability and collective agreement, for making innovative decisions, in this way, educational work is reflected efficiently and effectively in compliance with the goals, according to the requirements of the actors involved in the educational process that entails results in organizational performance in accordance with technological advances, in compliance with legal regulations, international standards and control, in the economic

and productive sphere of each of them. territorial constituencies at the national and international level.

Conclusions

The challenges of university accounting education for microenterprises were determined, reaching 47.50% of favorable opinion, being the highest percentage for this indicator, reference was made to innovative organizational strength, to take into account in the development of learning, to provide effective responses according to the financial needs of organizations; because the 15% contribution was very good and the 12.50% acceptance was excellent, according to the micro business results; with attention to 22.50% of regular opinion and 2.50% of minimum contribution, which involves the actions of practical and communicative participation of students in the accounting specialization process for the effectiveness of professional action in financial operational development of bussiness.

The contribution of innovative action for the students of the academic unit subject to investigation was also found, which reached 36.10% of good optimistic rating, because the opinion on the educational challenges of the students reflected the abilities of the students to take on challenges. , because 31.30% of participants showed very good agreement, with 7.20% of the grade excellent, pointing out the motivation in the multiple challenges of the students, for the solution of innovative proposals, with the generation of plans, programs , new educational resources, the development of new strategies, skills for the development and management of programs and digital tools related to the needs of the profession, for operational, economic and social development.

Because accounting students are the future professional contribution that organizations need to fulfill the financial and control mission, therefore, it is necessary to strengthen the strengths in the students, based on training, self-education, training and constant preparation, based on the latest technological advances and the demands of the globalized world. Therefore, it is necessary for higher education institutions to place emphasis on the review of programs and curricula in such a way that the subjects are duly reviewed with the important topics that reflect the relevance of innovative action, as well as the contribution of internationalization. accounting education.

Because the strengthening, will and perseverance of the academies is strengthened with the continuous updating of the academic programs and plans of accounting specialty, to provide society with enlightened professionals, with technical expertise for the effective solution of problems, coupled with the new challenges of modern industry 5.0 and according to the demands of globalization.

Conflict of interests

It is declared that there is no conflict of interest. Because the funding did not intervene in the design of the study, nor in the collection and analysis of the data, in that sense the writing of the scientific article was developed independently for the publication of research data.

References

AEC, A. E. (2022). BCE. (R. d. Calidad-Cibersecurity, Ed.) Obtained from https://www.aec.es/knowledge/revista/revista-calidad-2022-no-iii/: https://www.aec.es/wp - media/uploads/REV_AEC_Calidad_III_22_ok-2.pdf

Aguilar, M. P., Ceballos, M. A., & Andrade, R. L. (2015). University accounting education: training tools to meet the needs of organizations, the State, the community and families. (I. U. Antioquia, Ed.) Contexto, 238 ISSN: 2346-3279, pp. 168. Retrieved from https://www.redalyc.org/pdf/5518/551856272009.pdf

Albuquerque, F., Quirós, J. T., & Justino, R. (2016). Are cultural accounting values a relevant issue for SME financing options? Accounting and Administration, 62 (2017) (279–298). doi:http://dx.doi.org/10.1016/j.cya.2016.04.004

Alegre, B. M., & Kwan, C. C. (2022). Relevant Educational Aspects of the International Training Standards Issued by the International Accounting Education Standards Board. Accounting and Auditing (56 Year: 28), 1851-9202. doi:https://doi.org/10.56503/Contabilidad_y_Auditoria/Nro.56(28)pp15-42

Almazán, D. A., Tovar, Y. S., & Quintero, J. M. (2016). Influence of information systems on organizational results. (U. 0186-1042/DerechosReservados©, Ed.) Accounting and Administration, 62(2017) (303–320). doi:http://dx.doi.org/10.1016/j.cya.2016.07.005

Bernardo, M. G., & Isabella, P. C. (2022). Exploring Agency Termination in Colombia: Understanding the Impact of Political and Economic Factors on the Survival of Public Organizations. Colombia International (112). Retrieved on December 28, 2022, from https://revistas.uniandes.edu.co/doi/full/10.7440/colombiaint112.2022.01

Bough, A., & Martínez, S. G. (2023). Digital learning experiences and spaces: learning from the past to design better pedagogical and curricular futures. Curricular Journal, 34(3), pp. 375–393. doi:10.1002/curj.184

Casado, M. R., Zabaleta, G. R., Ainhoa, S. Z., & Lezcano, B. F. (2023). New challenges for guidance in inclusive education and children's rights: evaluation of the capacity to participate. (R. d. Educativa, Ed.) Journal of Educational Research, 41(2), 337-355. doi:https://doi.org/10.6018/rie.517441

Censuses, I. N. (2023). INEC. Retrieved on 10/18/2023, from INEC: https://n9.cl/3eqkx

Colina, Y. F., & Albites, S. J. (2020). Learning and innovation: challenges in 21st century organizations. From the South, pp. 167-176. doi:10.21142/DES-1201-2020-0011

De la Fuente Molina, J. (02, 2023). The Public Accountant version 2.0.2.3. (A. (. Mexican Institute of Public Accountants, Ed.) Public Accounting(27). Obtained from https://contaduriapublica.org.mx/2023/02/02/el-contador-publico-version-2-0- 2-3/

Dimartino, C. A., Boff, M. F., & Barbei, A. A. (12, 2021). The impact of COVID-19 on accounting education: bibliographic review and research proposal to address an educational model. (C. d. International, Ed.) Obtained from https://www.econo.unlp.edu.ar/frontend/media/47/25147/2abd77fe35268b7c627fe9aba92296cc.pdf

Elamer, A. A. (2019). The Vocational Skills Gap in Accounting Education Curricula: Empirical Evidence from the UK. (R. I. Education, Ed.) International Journal of Management in Education, 34. doi:10.1504/IJMIE.2020.10026560

Eliza, A. V., & Carolina, J. M. (2022). Sustainability in Colombian commercial companies: its enforceability through fiduciary duty. Private Law Magazine (42). https://n9.cl/zpkh9

Escudero, M. J. (2014). Advances and challenges in promoting innovation in educational centers. (Educar, Ed.) Educar, 1, 101-138. doi:http://dx.doi.org/10.5565/rev/educar.693

Espinosa, Z. Z., de Arriba, R. C., & Font, P. (2023). Transformative Effects of Service-Learning in University Teaching Practice. REMIE –Multidisciplinary Journal of Educational Research, 13(02), 220-247. doi: http://dx.doi.org/10.447/remie.11136

García, D. L., & Díaz, C. J. (2018). Factors that influenced rural entrepreneurship in Extremadura (Spain) during the period 2003 - 20121. Lebret Magazine(10), p.111-132. Retrieved on June 15, 2022, from https://dialnet.unirioja.es/servlet/articulo?codigo=7056008

García, L. O., Faura, M. Ú., & Lafuente, L. M. (2023). Social and Territorial Inequality in Education in Spain. (R. H. Press, Ed.) REMIE –Multidisciplinary Journal of Educational Research, 13(1), 166-195. doi:http://dx.doi.org/10.447/remie.9764

Gozal, J. (2023). Cracking the code: Understanding what influences the adoption of online learning among Indonesian students. (M. Letters, Ed.) Migration Letters, 21(1), pp. 292-304. doi:https://doi.org/10.59670/ml.v21i1.5180

Grajales, Q. J., & Usme, S. W. (2022). The question about the ethics of the public accountant: a reflection from literary fiction. Accounting University of Antioquia(82), pp. 13-26. doi:https://doi.org/10.17533/udea.rc.n82a01

GSSB, J. d. (2023). GRI. (G. (. Initiative), Producer) Retrieved from https://www.globalreporting.org/standards/global-sustainability-standards-board/

Guevara, S. J., Pulgarín, A. F., & Gaviria, G. D. (2023). Business control, conflict of powers: Avianca Holding case. (C. U. Antioquia, Ed.) Accounting University of Antioquia (82), 109-130. doi: https://doi.org/10.17533/udea.rc.n82a05

IFAC, F. I. (2019). Manual of International Training Pronouncements. (IFAC.ORG, Ed.) Retrieved from https://www.ifac.org/system/files/publications/files/Manual-de-Pronunciamientos-Internacionales-de-Formacion-Edicion-2015.pdf

IFAC, F. I. (2023). (©. 2. Control, Editor) Retrieved from International Federation of Automatic Control: https://www.ifac-control.org/

Jalagat, R., & Aquino, P. (2023). Curricular Gaps in Public Administration: Perceptions of Academics and Other Stakeholders in the Philippines. (H. IJELM, Ed.) IJELM – International Journal of Educational Leadership and Management, 11(1). doi:http://dx.doi.org/10.17583/ijelm.2023.8812

Jordi, D.-G., Mireia, C.-Z., & Joan, G.-O. (2013). Strengthening education through collaborative networks: leading the cultural change. School Leadership & Management: Formerly School Organization, 34(2), 179–200. doi: 10.1080/13632434.2013.856296

Kim, L., Pongsakornrungsilp, P., Pongsakornrungsilp, S., Horam, N., & Kumar, V. (2023). Key determinants of job satisfaction among university professors. Social Sciences, 12(153). doi:https://doi.org/10.3390/socsci12030153

López Sánchez, L. M. (2013). International standards and accounting education. (R. A. CENES, Ed.) Apuntes del CENES, 32(55), 239-261. Retrieved from https://www.redalyc.org/pdf/4795/479548633010.pdf

López, S. V., Couso, L. D., & Simarro, R. C. (2020). STEM education in and for a digital world: the role of digital tools in the performance of scientific, engineering and mathematical practices. (U. d. Murcia, Ed.) Distance Education Magazine, 20(62). doi: http://dx.doi.org/10.6018/red.410011

Martínez Sanz, R. (2022). When Teaching Innovation Awakens Vocations. Effects of Collaborative Learning on University Students of Organizational Communication. REMIE – Multidisciplinary Journal of Educational Research, 12(2), 171-197. doi:http://dx.doi.org/10.447/remie.6583

Mireia, C. Z., Moisés, E.-G., & Jordi, C. S. (2023). New challenges, new alliances: universities and face-to-face and virtual educational ecosystems. Journal of Distance Education, 23(74). doi:http://dx.doi.org/10.6018/red.557741

Ordóñez, S. S. (06, 2021). Financial education based on bitcoin and its inclusion in study plans. (RIDE, Ed.) Ibero-American Journal for Educational Research and Development, 12(22). doi:https://doi.org/10.23913/ride.v11i22.973

Ospina Hernández, G. (2022). Quality accounting education and its challenges to address the challenges of a changing environment. Fesc World, 22-35. Retrieved on July 28, 2023, from https://www.fesc.edu.co/Revistas/OJS/index.php/mundofesc/article/view/1048/810

Ospina Z. Carlos M. (2009). Accounting Education in Colombia, feelings of some actors and accounting education as an educational action. (C. U. Antioquia, Ed.) Accounting University of Antioquia (55), 11-40. doi:DOI: https://doi.org/10.17533/udea.rc.16336

Ospina, H. G. (2022). Quality accounting education and its challenges to address the challenges of a changing environment. (M. Fesc, Ed.) Mundo Fesc, 12(24), 22-35. Obtained from https://www.fesc.edu.co/Revistas/OJS/index.php/mundofesc/article/view/1048

Ospina, Z. C., Gómez, V. M., & Rojas, R. W. (2014). The constitution of subjectivity in accounting education: from the implicit process to the visibility of its impacts. (C. d. Accounting, Ed.) Accounting Notebooks, 15(37), 187-211. doi:10.11144/Javeriana.cc15-37.csec.

Pérez, J. P., & Torres, E. M. (2016). Evaluation of the university organizational image in a higher education institution. (F. d. National Autonomous University of Mexico, Ed.) Accounting and Administration (62), 105-122. doi:http://dx.doi.org/10.1016/j.cya.2016.07.002

Romero, L. H. (2022). Training of Professional Judgment in Colombian Public Accounting. Accounting University of Antioquia (82), pp.49-88. doi:https://doi.org/10.17533/udea.rc.n82a03

Rosero, P. A., & De La Ossa, E. D. (2022). New scenarios, actors and educational practices where coexistence, diversity and culture are built. Educare Electronic Magazine (, Vol. 26(2). doi: https://doi.org/10.15359/ree.26-2.4

Sánchez, V. L. (2022). Accounting contributions for organizational information practices on sustainability, from standardization to legitimation. (University T. d., Ed.) (23(2)), (1-10). doi:DOI: https://doi.org/10.30554/lumina.v23.n2.4763.2022

Sangster, Alan; Stoner, Greg; Flood, Barbara. (s.f.). Perspectives on accounting education in a COVID-19 world. Accounting Education, 29(5). doi:https://doi.org/10.1080/09639284.2020.1808487

Sarría, S. Á., Gómez, S. A., & Granda, D. A. (2021). Didactic Strategies in the Programming Teaching-Learning Process. University and Society Magazine, 13(S2), 549-556. Retrieved on July 28, 2022, from https://rus.ucf.edu.cu/index.php/rus/article/view/2347/2315

Souza, S. B., Ferreira, P. C., Veiga Simão, A. M., & Falla, D. (2022). The Dynamics of Cyberbullying in College Students: Moderating Effects of Gender and Culture. REMIE – Multidisciplinary Journal of Educational Research, 12(3), 322-347. doi:http://dx.doi.org/10.447/remie.8999

Villiers, R. D. (2010). The incorporation of soft skills into accounting curricula: preparing accounting graduates for their unpredictable futures. (E. G. Limited, Ed.) Meditari Accountancy Research, 18(2), 1-22. doi:https://doi.org/10.1108/10222529201000007

Yuzzelli, A. O. (2018). Teaching and research of Roman law in Peru in the last forty years. Private Law Magazine (35). Retrieved on December 27, 2022, from https://revistas.uexternado.edu.co/index.php/derpri/article/view/5543/6747

Zambrano-Murillo, C. I., & Chávez-Loor, Y. (2022). Information and communication technologies in the development of students of the “Pueblo Nuevo” educational unit. (E. 70, Ed.) Polo del Conocimiento, 7(12), pp. 24-48. doi:http://polodeltrabajo.com/ojs/index.php/es

Zhang, Y. (2023). Using Google Trends to track the global interest in International Financial Reporting Standards: Evidence from big data. (Intelligent Systems in Accounting, Ed.) Intelligent Systems in Accounting, 1-14. doi:https://doi.org/10.1002/isaf.1529