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Designing a Framework Based on Student-Centered Learning Approaches to Enhance Professional Behaviors and the Effectiveness of Accounting Education

ABSTRACT

The present study aimed to design a framework grounded in student-centered learning approaches to enhance professional behaviors and improve the effectiveness of accounting education. Accordingly, in terms of purpose, the research was applied; in terms of time horizon, it employed a cross-sectional design; and philosophically, it was based on an inductive approach. A grounded theory methodology was adopted to conduct the study. The participants consisted of 10 expert accounting faculty members from universities, each with at least 10 years of teaching experience, relevant scientific publications, and experience in curriculum design. They were selected purposively until theoretical saturation was achieved. Data were collected through semi-structured interviews. Qualitative validity was confirmed using Creswell's (2005) eight-step strategy, including member checking, triangulation, and peer debriefing. Qualitative reliability was ensured through precise documentation of the coding process in MAXQDA software and an inter-coder agreement rate exceeding 85%. The findings indicated that causal conditions such as active student participation, the use of modern technologies, and constructive feedback lead to the core category comprising diversity of instructional methods, interactive learning, and course design aligned with learner needs. Contextual conditions (continuous assessment, practical skills, and metacognitive competencies) and intervening conditions (enhancement of scientific content, a diverse learning environment, and attention to individual talents) shape strategies such as encouraging creativity, critical thinking, and the development of appropriate instructional content. The outcomes include facilitating deep learning, fostering motivation and enthusiasm, and enhancing collaboration and interaction, which strengthen professional behaviors such as integrity, accountability, and critical thinking. This framework aligns accounting education with professional requirements and improves its overall quality.

Keywords: Accounting, student-centered learning, professional behavior of accountants, grounded theory.

Introduction

Accounting education has historically evolved in response to changes in economic systems, regulatory frameworks, and professional expectations. From its early institutionalization in the twentieth century to its contemporary integration within globalized markets, accounting as an academic discipline has continuously negotiated the tension between technical proficiency and broader professional responsibility. The historical trajectory of accounting programs, as documented in longitudinal institutional analyses, reveals a gradual shift from narrow bookkeeping instruction toward more comprehensive curricula encompassing ethics, governance, and decision-making competencies (1). This evolution reflects the increasing complexity of

financial systems and the expanding societal expectations placed upon accounting professionals. At the same time, recent historiographical reflections emphasize that accounting education must not only transmit technical standards but also cultivate interpretive, ethical, and contextual awareness to address emerging global challenges (2).

In contemporary contexts, accounting education is deeply intertwined with regulatory and institutional transformations. The expansion of supranational regulatory regimes, particularly within integrated economic blocs, has significantly reshaped the knowledge base required of accounting professionals (3). Such regulatory developments demand graduates who can interpret evolving standards, navigate cross-border compliance requirements, and respond to institutional accountability pressures. Moreover, the financial crises of recent decades have underscored the systemic implications of accounting judgments and disclosure practices, highlighting the profession's central role in safeguarding financial stability (4). These dynamics have intensified calls for educational models that go beyond procedural knowledge and instead emphasize ethical reasoning, critical analysis, and professional accountability.

The growing prominence of environmental, social, and governance (ESG) considerations has further transformed the expectations placed upon accounting professionals. Corporate social responsibility (CSR) and sustainability reporting are no longer peripheral concerns but central components of financial and non-financial disclosure practices (5). In the banking sector and other industries, effective implementation of CSR policies depends significantly on targeted professional development and educational preparation (6). Consequently, accounting education must equip students with the competencies necessary to interpret sustainability metrics, assess ethical implications, and integrate social responsibility into organizational decision-making.

Professional competencies have been extensively examined in the literature over the past fifteen years, revealing persistent gaps between the skills supplied by educational institutions and those demanded by employers (7). Transversal skills—such as communication, teamwork, adaptability, and ethical judgment—are increasingly recognized as critical to professional success (8). Simultaneously, the profession faces ethical crises, including academic and professional cheating, which threaten public trust and underscore the urgency of strengthening integrity within accounting programs (9). These concerns demonstrate that professional behavior is not merely a technical matter but a pedagogical outcome shaped by instructional design and institutional culture.

The interplay between personal and professional risk perceptions further complicates the ethical landscape of accounting practice. Evidence suggests that accounting professionals often perceive professional risk as equally or more concerning than personal risk, indicating heightened awareness of reputational and regulatory consequences (10). Such findings reinforce the necessity of embedding ethical sensitivity and accountability within the educational process. Moreover, accountability itself has become a central theme in educational discourse, as institutions navigate tensions between performative metrics and professional values (11). In inclusive educational settings, accountability models must balance quantitative performance indicators with qualitative professional development (12). These insights are directly relevant to accounting education, where curricular administration increasingly relies on calculative practices that may inadvertently prioritize measurable outputs over deeper learning outcomes (13).

Against this backdrop, pedagogical innovation has emerged as a crucial mechanism for aligning accounting education with professional demands. Integrative approaches that bridge theory and practice have been proposed as essential for preparing graduates to navigate complex reporting and auditing environments (14). Blended learning models and student-centric evaluation frameworks have shown promise in enhancing engagement and conceptual understanding within accounting courses (15). Similarly, the integration of information and communication technologies (ICT) into curriculum practices has expanded opportunities for collaborative learning, simulation, and experiential engagement among preservice accounting teachers (16).

Student-centered learning (SCL) represents a paradigm shift from traditional lecture-based instruction toward participatory, reflective, and interactive pedagogies. Empirical evidence from related educational contexts demonstrates that SCL approaches significantly enhance 21st-century skills performance, including critical thinking, problem-solving, and collaboration (17). Within accounting education, determinants of students' learning strategies are influenced by motivational, contextual, and institutional factors, indicating that pedagogical design plays a pivotal role in shaping academic engagement (18). Furthermore, students' perceptions of the profession and their motivational orientations significantly affect career intentions in accounting and taxation fields (19). These findings suggest that fostering intrinsic motivation and professional identity formation is essential to sustaining interest in accounting careers.

Despite these advances, significant challenges remain. The calculative orientation of higher education governance may inadvertently constrain pedagogical experimentation and prioritize standardized assessment over meaningful engagement (13). Additionally, tensions between inclusive educational practices and accountability demands can complicate efforts to implement student-centered frameworks (11). Addressing these challenges requires a coherent conceptual model that integrates causal, contextual, and strategic dimensions of instructional design.

The evolution of accounting as a discipline demonstrates that educational reform must be historically informed yet future-oriented (1). Contemporary accounting history scholarship underscores the importance of methodological reflexivity and interdisciplinary integration in shaping future research agendas (2). Similarly, regulatory transformations within the European Union and beyond demand adaptive educational models capable of responding to dynamic compliance environments (3). These developments collectively highlight the necessity of designing frameworks that connect pedagogical innovation with professional behavior formation.

In sum, the convergence of regulatory complexity, ethical challenges, technological transformation, and evolving competency demands underscores the urgency of reexamining accounting education. Prior research has illuminated discrete aspects of this landscape, including CSR integration (6), ESG dynamics (5), competency supply-demand mismatches (7), transversal skill development (8), ethical crises (9), risk perceptions (10), and pedagogical innovations such as blended learning (15) and ICT integration (16). However, a comprehensive, grounded framework that systematically links student-centered learning approaches to the strengthening of professional behaviors and the enhancement of accounting education effectiveness remains underdeveloped.

Therefore, the aim of this study is to design a comprehensive framework based on student-centered learning approaches to strengthen professional behaviors and enhance the effectiveness of accounting education.

Methods and Materials

A qualitative research method was selected because this approach enables an in-depth exploration of concepts related to professional behaviors and student-centered learning.

In terms of purpose, this study is applied research, as it seeks to design an operational framework to improve accounting education with a focus on student-centered learning approaches and the enhancement of professional behaviors. Its primary objective is to provide solutions that can be directly implemented in real educational settings, such as universities and accounting training institutions.

Regarding the time horizon of data collection, the study employed a cross-sectional design and was conducted within a specified period.

The research philosophy is grounded in an inductive approach, which leads to the development of a theoretical framework through the extraction of concepts from qualitative data. This qualitative structure is consistent with the complexity of the

research topic and enables an in-depth explanation of the relationships between student-centered learning and professional behaviors (Sarmad et al., 2024).

In this study, the grounded theory method with a systematic strategy was employed, as this method allows for the extraction of a theoretical framework from real-world data without prior assumptions. Grounded theory is appropriate for identifying the dimensions of professional behaviors and the role of student-centered learning in accounting education, as it aligns with the exploratory nature of the research and facilitates the explanation of complex relationships among concepts. The statistical population consisted of distinguished and expert accounting faculty members from reputable Iranian universities, selected due to their extensive experience and profound knowledge in accounting education. Purposive sampling was used, and the selection criteria included a minimum of 10 years of teaching experience, relevant scientific publications, and experience in curriculum design. The sampling process continued until theoretical saturation was achieved, and ultimately, interviews were conducted with 10 faculty members. The demographic characteristics of the participants are presented in Table 1.

Table 1. Demographic Characteristics of Interviewed Experts

Group	Number	Master's Degree	Doctoral Degree
University Faculty and Experts	10	–	100%

All participants held a Ph.D. in Accounting, indicating their high level of expertise in this field.

Data were collected through unstructured and semi-structured interviews. In the initial phase, unstructured interviews were conducted to identify preliminary concepts related to student-centered learning and professional behaviors. Subsequently, semi-structured interviews were carried out using an interview guide consisting of 15 open-ended questions designed in 2025. These questions focused on issues such as barriers to strengthening professional behaviors, the role of student-centered learning in accounting education, and strategies to improve educational effectiveness. The interviews were conducted face-to-face and, in some cases, virtually using secure platforms. Each interview lasted between 45 and 60 minutes. The interview content was audio-recorded and then transcribed verbatim. To ensure data quality, the interview guide was reviewed and approved by three expert faculty members prior to implementation. This process contributed to the extraction of rich and relevant data aligned with the research objectives. A sample of the interview is presented in Table 2.

Table 2. A Portion of the Interview Conducted with One of the Experts

Interview Text
In response to your question, I should state that, from my perspective, students can form study groups and engage in discussion and exchange of ideas regarding accounting concepts. These activities help students better understand concepts and benefit from each other's experiences through social learning methods. Students can present their reports and projects using creative and innovative approaches. Such activities help them improve their analytical and communication skills and serve as valuable resources for other students and faculty members. Students can use communication technologies such as online forums, video-based platforms, blogs, and social networks to exchange information, resources, and experiences. These technologies enable students to interact in an interactive and collaborative environment with classmates and instructors and benefit from shared experiences. They can actively engage with instructors regarding student-centered learning methods. These interactions may include participation in class sessions, question-and-answer discussions, and individual consultations with instructors. Such communication not only strengthens students' connections with their instructors but also encourages instructors to advance student-centered learning approaches and consider students' feedback and opinions. Students can participate in workshops and seminars in the field of accounting and learning methodologies. These activities allow them to benefit from the experiences of faculty members and accounting professionals and to understand new ideas and developments in education. Students can provide their opinions, suggestions, and feedback regarding accounting teaching methods to instructors and relevant administrators. These comments may include proposing innovative ideas, evaluating current teaching methods, or offering suggestions to improve educational quality. By implementing these strategies and fostering active student participation, the quality of accounting education based on student-centered learning approaches can be improved. Collaboration and interaction between students and instructors can enhance the teaching-learning process and provide a better educational experience for all parties involved.

Data analysis was conducted based on the systematic grounded theory approach in three stages: open coding, axial coding, and selective coding. In open coding, the interview content was broken down into initial concepts, and codes were extracted directly from the data. In axial coding, relationships among concepts were identified, and main categories were formed. Finally,

in selective coding, the final framework was developed with a central focus on student-centered learning and the enhancement of professional behaviors. This process was conducted systematically using MAXQDA software to ensure accurate data management and code tracking. To ensure analytical quality, the coding process was continuously reviewed by the researcher and a trained colleague. This analytical method led to an in-depth explanation of the relationships among concepts and the development of a coherent framework.

To ensure the validity of the qualitative data, Creswell's (2005) eight-step strategy was employed. These strategies included member checking, data triangulation (through comparison of interview data with existing educational documents), and peer debriefing, all of which confirmed the credibility of the data. Furthermore, to ensure reliability, the coding process was meticulously documented. Two independent coders (the researcher and a trained colleague) coded the interview data separately, and the results were examined using an inter-coder agreement coefficient, which indicated an agreement rate exceeding 85%. The use of MAXQDA software enabled systematic tracking and review of the analytical stages. These measures strengthened confidence in the accuracy and trustworthiness of the research findings. Detailed documentation and continuous review ensured the quality of the qualitative analysis.

Findings and Results

In this section, the findings are presented based on the research question in order to provide a coherent and structured response to the objective of this study. The research question states:

What is the framework based on student-centered learning approaches for enhancing professional behaviors and the effectiveness of accounting education?

This question was designed with the aim of exploring and explaining the dimensions of a comprehensive framework that strengthens professional behaviors alongside improving the effectiveness of accounting education through student-centered learning approaches.

To answer this question, grounded theory with a systematic approach was employed to extract a theoretical and practical framework from qualitative data. This method is aligned with the exploratory nature of the study due to its capacity to identify complex relationships among concepts and to generate context-based models. The data analysis process was conducted meticulously and transparently in three stages: open coding, axial coding, and selective coding, which are explained below.

In the open coding stage, data obtained from unstructured and semi-structured interviews with 10 expert accounting faculty members were analyzed. The purpose of this stage was to identify initial concepts related to student-centered learning, professional behaviors, and the effectiveness of accounting education. The interview transcripts were carefully transcribed and examined line by line to extract codes directly from the data. Each meaningful phrase or segment of the interviews was labeled as an open code. In this process, 185 open codes were identified, including concepts such as "critical thinking in education," "student-instructor interaction," "challenges of traditional learning," and "the role of professional ethics." These codes were derived from the raw interview content without imposing prior theoretical assumptions. Due to the large number of codes, they were organized using MAXQDA software to enable precise management and traceability. The results of this stage served as the foundation for the subsequent coding phases.

In the axial coding stage, the initial codes and concepts extracted in the previous phase were organized based on similarities and recurring patterns in order to form main categories. The objective of this stage was to identify relationships among codes and group them into meaningful categories. To achieve this, the codes were analyzed according to conceptual connections and shared themes. For example, codes such as encouraging critical thinking and questioning, creating an environment for documentation and dissemination of results, deeper analysis of concepts for students, logical evaluation of information, and

strengthening logical inference among students were categorized together. The results of axial coding derived from the open codes are presented in Table 3.

Table 3. Concepts Extracted from Axial Coding

No.	Concepts	No.	Concepts
1	Formation of study groups	25	Updating accounting course content
2	Development of social learning methods	26	Use of diverse resources by students
3	Participation in specialized workshops	27	Use of blended learning methods
4	Use of online educational resources	28	Presentation of materials in multimedia formats
5	Use of experiential technologies	29	Provision of flexible academic assignments
6	Development of project-based learning experiences	30	Administration of aptitude assessment tests
7	Regular administration of performance assessment tests	31	Increasing enrollment in self-directed specialized courses
8	Use of peer assessment methods	32	Encouragement of critical thinking and questioning
9	Promotion of self-directed learning methods among students	33	Creation of an environment for documentation and dissemination of results
10	Development of team-based exercises	34	Deeper analysis of concepts for students
11	Enhancement of students' mental mapping and creativity	35	Logical evaluation of information
12	Promotion of psychological synergy among students	36	Strengthening logical inference among students
13	Development of case studies for solving practical problems	37	Reflection of students' needs
14	Attention to students' specific academic needs	38	Development of engaging and diverse instructional content
15	Continuous evaluation of learning processes	39	Increasing students' connection with practical realities
16	Incorporation of students' opinions in instructional design	40	Deep understanding of fundamental concepts
17	Administration of formative assessments	41	Development of constructive analysis and critique
18	Increase in direct feedback from instructors	42	Encouragement of creativity and curricular flexibility
19	Expansion of the use of learning management systems	43	Creation of a dynamic learning environment
20	Expansion of the use of specialized software	44	Encouragement of instructional innovation
21	Development of collaboration with industry	45	Enhancement of knowledge and experience exchange
22	Development of collaboration with auditing institutions and organizations	46	Increased diversity and plurality in the learning environment
23	Use of metacognitive learning strategies	47	Strengthening communication skills among students
24	Encouraging students toward deep thinking		

In the selective coding stage, the main categories identified during axial coding were integrated around a central category entitled "Student-Centered Learning as the Core Axis for Strengthening Professional Behaviors and Enhancing the Effectiveness of Accounting Education" in order to develop the final research framework. This central category was selected due to its pivotal role in connecting the other categories and explaining the relationships among them. At this stage, causal, contextual, and consequential relationships among the categories were systematically analyzed. This process was conducted using MAXQDA software, and the results are presented in Table 4, which clearly and concisely illustrates the structure of the framework and the relationships among the categories.

Table 4. Categories and Concepts Extracted in Selective Coding

No.	Type of Factor	Selective Codes	Axial Codes
1	Causal Conditions	Active student participation	Formation of study groups
2			Development of social learning methods
3			Participation in specialized workshops
4		Use of modern technologies in teaching	Use of online educational resources
5			Use of experiential technologies
6			Development of project-based learning experiences
7		Regular assessment and constructive feedback	Regular administration of performance assessment tests
8			Use of peer assessment methods
9			Core Category
10	Development of team-based exercises		
11	Strengthening interactive learning	Enhancement of students' mental mapping and creativity	
12			Promotion of psychological synergy among students
13			Development of case studies for solving practical problems
14			Course design aligned with students' needs
15	Continuous evaluation of learning processes		

16			Incorporation of students' opinions in instructional design
17	Contextual Conditions	Continuous assessment of students' level of understanding	Administration of formative assessments
18			Increase in direct feedback from instructors
19			Expansion of the use of learning management systems
20		Development of students' practical skills	Expansion of the use of specialized software
21			Development of collaboration with industry
22			Development of collaboration with auditing institutions and organizations
23		Teaching metacognitive skills to students	Use of metacognitive learning strategies
24			Encouraging students toward deep thinking
25	Intervening Conditions	Enhancement of the scientific content of courses	Updating accounting course content
26			
27		Creation of a diverse learning environment	Use of blended learning methods
28			Presentation of materials in multimedia formats
29		Attention to students' individual talents	Provision of flexible academic assignments
30			Administration of aptitude assessment tests
31			Increasing enrollment in self-directed specialized courses
32	Strategies	Encouraging research and creativity	Encouragement of critical thinking and questioning
33			
34		Cultivation of critical thinking	Deeper analysis of concepts for students
35			Logical evaluation of information
36			Strengthening logical inference among students
37		Development of appropriate instructional content	Reflection of students' needs
38			Development of engaging and diverse instructional content
39			Increasing students' connection with practical realities
40	Consequences	Facilitation of deep learning	Deep understanding of fundamental concepts
41			
42		Development of motivation and enthusiasm	Encouragement of creativity and curricular flexibility
43			Creation of a dynamic learning environment
44			Encouragement of further instructional innovation
45		Enhancement of student collaboration and interaction	Increase in knowledge and experience exchange
46			Increased diversity and plurality in the learning environment
47			Strengthening communication skills among students

According to the obtained results, the final research model developed in response to the first research question—namely, the framework based on student-centered learning approaches for strengthening professional behaviors and enhancing the effectiveness of accounting education—is presented in Figure 1.

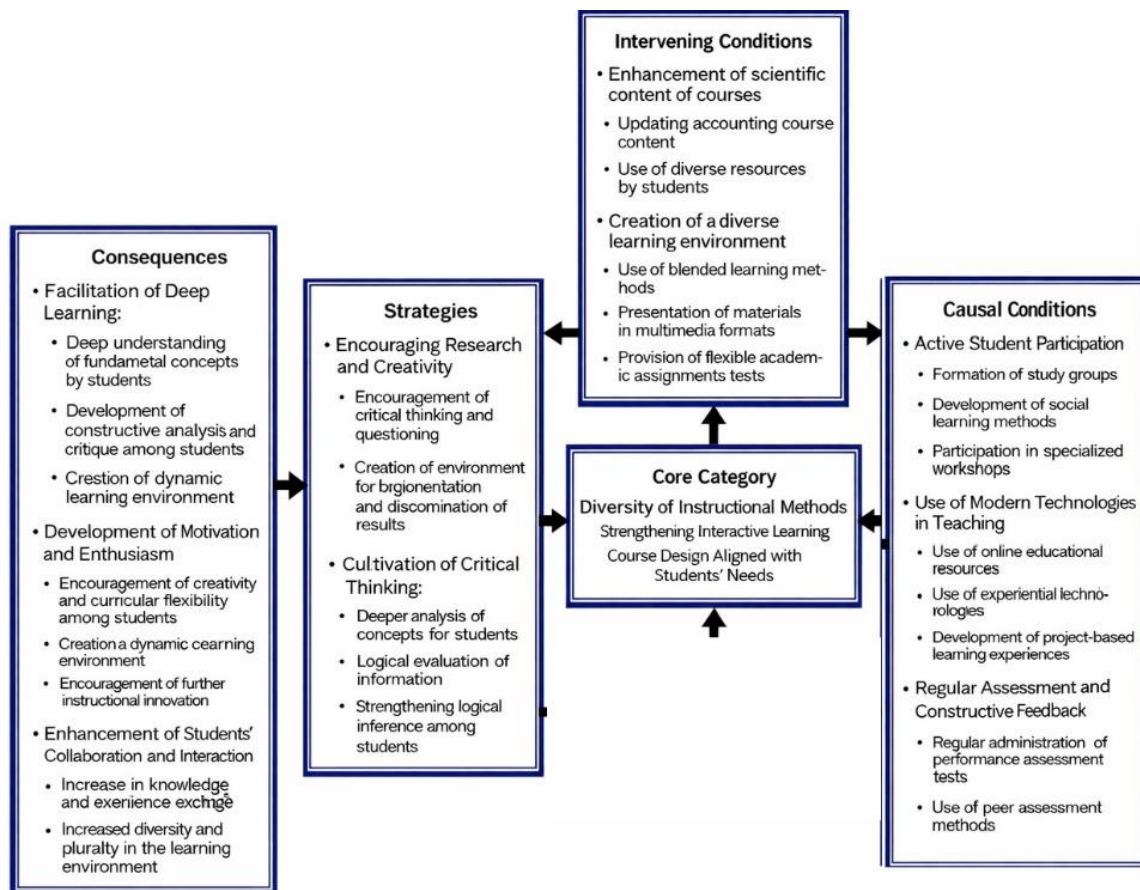


Figure 1. Final Research Model

Discussion and Conclusion

The findings of this study led to the development of a grounded framework positioning student-centered learning as the core axis for strengthening professional behaviors and enhancing the effectiveness of accounting education. The results demonstrated that causal conditions—namely active student participation, the integration of modern technologies in teaching, and regular assessment accompanied by constructive feedback—serve as primary drivers in shaping diversified instructional methods, interactive learning processes, and course design aligned with students' needs. These findings confirm the growing recognition that accounting education must move beyond transmissive pedagogy toward participatory and competence-oriented learning environments. The emphasis on active participation and social learning resonates with prior research highlighting the importance of student motivation and perception in shaping career trajectories in accounting and taxation (19). When students are engaged as active agents in the learning process, they are more likely to internalize professional norms and develop a stronger professional identity.

The integration of modern technologies and experiential tools identified in the causal conditions further supports contemporary calls for integrative and innovative pedagogical approaches in accounting and auditing education (14). The results align with blended learning models that have demonstrated improved conceptual understanding and learner satisfaction within accounting programs (15). Moreover, the systematic use of digital platforms and ICT-enhanced curriculum practices parallels findings on the transformative role of information and communication technologies in accounting teacher education (16). In this respect, the framework developed in this study reinforces the notion that technology is not merely a delivery mechanism but a structural enabler of collaborative, reflective, and practice-oriented learning experiences.

Regular assessment and constructive feedback emerged as critical mechanisms linking instructional processes to professional behavior formation. This finding can be interpreted through the lens of accountability frameworks in education, where balancing formative evaluation with professional autonomy is essential for sustainable development (12). Similarly, research on performative and professional accountability underscores the need to reconcile measurable performance indicators with deeper professional values (11). By embedding peer assessment, formative testing, and continuous feedback within the pedagogical structure, the model addresses the tension between external accountability demands and internal professional growth. This is particularly significant in accounting, where calculative practices increasingly shape curricular administration and evaluation systems (13).

The contextual conditions identified in the model—continuous assessment of students' understanding, development of practical skills, collaboration with industry, and training in metacognitive strategies—highlight the multifaceted nature of professional competence. Prior longitudinal analyses have shown persistent mismatches between educational outputs and the competencies demanded by the profession (7). The emphasis on transversal skills and adaptability within the present framework corresponds with evidence that accounting graduates require communication, analytical reasoning, and collaborative capacities to meet evolving market expectations (8). Additionally, fostering metacognitive awareness enhances students' ability to regulate their learning processes, which is consistent with research on determinants of learning strategies among accounting undergraduates (18). By addressing these dimensions holistically, the model responds directly to identified competency gaps.

The intervening conditions—updating scientific content, diversifying instructional resources, creating inclusive and dynamic learning environments, and attending to individual talents—underscore the importance of curricular responsiveness. Regulatory transformations within global and regional frameworks, particularly within the European Union, have heightened the need for adaptive and context-sensitive accounting education (3). Updating course content in alignment with regulatory developments ensures that students are prepared to navigate complex compliance environments. Furthermore, the inclusion of sustainability and CSR dimensions within course content aligns with the broader shift toward socially responsible corporate governance and reporting practices (5). Educational initiatives supporting CSR implementation in financial institutions further demonstrate that professional development and academic preparation are integral to effective policy adoption (6).

The strategies emerging from the model—encouraging research and creativity, cultivating critical thinking, and producing relevant instructional content—directly address ethical and professional challenges within the accounting field. The identified emphasis on critical questioning and logical evaluation is particularly salient in light of concerns about academic and professional misconduct. The crisis of cheating within the accounting profession underscores the necessity of embedding integrity and ethical reasoning into pedagogical design (9). Moreover, awareness of professional risk perceptions among accountants suggests that strengthening ethical decision-making during educational stages can mitigate long-term reputational and regulatory risks (10). By fostering analytical rigor and reflective judgment, the framework contributes to reinforcing professional trust.

The consequences of implementing the model—facilitation of deep learning, development of motivation and enthusiasm, and enhancement of collaboration and interaction—demonstrate the systemic impact of student-centered pedagogy. Deep conceptual understanding and constructive critique are foundational to maintaining financial transparency and stability, particularly in times of crisis (4). Historical analyses of accounting education reveal that sustained curricular reform has been essential in adapting to societal and economic transformations (1). In parallel, historiographical perspectives emphasize the need for interdisciplinary and methodologically diverse approaches to address contemporary research and practice challenges (2). The present findings contribute to this trajectory by offering a structured and empirically grounded model linking pedagogical innovation with professional behavior development.

Importantly, the model integrates technological innovation, ethical sensitivity, and competency development within a unified conceptual structure. In doing so, it responds to the broader demand for integrative approaches bridging academic theory and professional practice (14). The convergence of these dimensions illustrates that strengthening professional behavior cannot be achieved through isolated curricular adjustments but requires systemic pedagogical transformation. Collectively, the findings confirm that student-centered learning serves not only as a pedagogical technique but as a strategic foundation for aligning accounting education with evolving professional and societal expectations.

Despite the contributions of this study, several limitations must be acknowledged. First, the research relied on qualitative data derived from expert faculty members, which may limit the generalizability of the findings to other institutional contexts. Second, the sample was confined to a specific national higher education environment, potentially influencing perceptions of accountability, regulation, and professional standards. Third, the absence of quantitative validation restricts the ability to statistically assess the strength of relationships among the identified categories. Finally, the dynamic nature of regulatory and technological developments may require periodic revision of the proposed framework.

Future research could extend this study by conducting quantitative investigations to empirically test the structural relationships among causal, contextual, and consequential components of the model. Comparative cross-national studies may also explore how variations in regulatory environments and professional cultures influence the effectiveness of student-centered frameworks in accounting education. Longitudinal designs could assess the long-term impact of such frameworks on graduates' professional performance and ethical behavior. Additionally, integrating student perspectives alongside faculty insights would provide a more comprehensive understanding of pedagogical transformation processes.

From a practical perspective, universities and accounting departments should consider systematically embedding student-centered learning principles into curriculum design and evaluation mechanisms. Faculty development programs should focus on enhancing instructors' competencies in facilitating interactive, technology-enhanced, and ethically grounded learning environments. Institutions should also strengthen collaboration with industry partners to ensure alignment between educational content and professional practice demands. Finally, administrators should design accountability systems that balance measurable performance indicators with qualitative assessments of professional growth, thereby sustaining both educational integrity and institutional effectiveness.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

All ethical principles were adhered in conducting and writing this article.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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