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Reform and Practice of the "Accounting" Course under the New Business Education Framework in the Digital-Intelligent Era

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Abstract: The rapid development of digital-intelligent technologies, including artificial intelligence, big data analytics, and cloud computing, poses fundamental challenges to traditional accounting education paradigms. Grounded in the positioning of the "Accounting" course as a foundational platform course for business-related majors, and in response to the persistent pain points of conventional teaching methodologies—such as fragmented knowledge structures, insufficient practical application, and limited integration of emerging technologies—this paper proposes a comprehensive course teaching reform scheme. The reform takes "using accounting" as its core teaching objective, adopts "business-finance integration" as the logical mainline, and is jointly driven by digital-intelligent technology and ideological and political education. The restructured course constructs a four-in-one objective system encompassing knowledge acquisition, competency development, quality cultivation, and technological proficiency. Teaching content is systematically organized along the "business-information-decision" chain to foster a holistic understanding of accounting's role in organizational decision-making. Furthermore, the course adopts blended teaching methods and project-driven pedagogical approaches to realize an integrated teaching-learning-doing model. This reform aims to cultivate students' financial thinking, data literacy, and business ethics awareness, thereby preparing them to meet the evolving demands of the digital economy. The proposed framework provides a replicable reference for accounting curriculum innovation in higher education institutions pursuing new business education initiatives.

Keywords: accounting education; digital intelligence; business education; curriculum reform; blended learning

1. The Necessity of Reforming the "Accounting" Course

Digital-intelligent technologies—including big data analytics, artificial intelligence, distributed ledger systems, and cloud-based computing platforms—are fundamentally transforming enterprise operational architectures across industries and functional domains. This transformation extends beyond incremental efficiency gains to reconfigure core business processes, governance mechanisms, and strategic decision-making frameworks. Enterprises increasingly depend on dynamic, high-fidelity data streams integrated with predictive modeling and automated reasoning systems to anticipate market shifts, optimize resource allocation, and mitigate systemic risks [1]. Consequently, the competencies demanded of future business professionals have evolved significantly: proficiency in interpreting multidimensional data outputs, identifying latent patterns through statistical and algorithmic lenses, evaluating financial and non-financial performance indicators holistically, and exercising ethical judgment when deploying analytical tools in complex organizational contexts. Higher education institutions, particularly those delivering business curricula, face mounting pressure to align pedagogical design with these emergent professional expectations. The contemporary paradigm of business education prioritizes integrative learning—where technological fluency is embedded not as an isolated skill set but as a foundational layer interwoven with economic reasoning, organizational behavior, sustainability principles, and

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stakeholder accountability. This approach necessitates moving beyond siloed disciplinary instruction toward cohesive, problem-centered curricular architectures that foster adaptive cognition, collaborative sense-making, and responsible innovation. Such educational evolution reflects broader societal imperatives for talent capable of navigating ambiguity, balancing quantitative rigor with qualitative insight, and contributing constructively to sustainable economic development.

Accounting serves as the foundational discipline anchoring business education, functioning as both a technical framework and a conceptual language for articulating economic activity, resource stewardship, and value creation. As a required foundational course across business administration, finance, marketing, and management programs, its pedagogical scope must extend well beyond procedural competence in journal entries, ledger maintenance, and financial statement preparation. Historically, instructional emphasis has disproportionately favored transactional accuracy and compliance-oriented knowledge—what might be termed the 'mechanics of accounting'—while underemphasizing the interpretive, diagnostic, and strategic dimensions inherent in financial information systems. Business students are rarely destined for roles as certified public accountants or internal auditors; rather, they typically assume positions such as project coordinators, department heads, operations analysts, or strategic planners—roles requiring the capacity to decode balance sheets and income statements as narratives of organizational health, to assess capital structure implications for growth initiatives, to correlate cost behavior with operational decisions, and to integrate accounting insights with market intelligence and behavioral considerations. Therefore, updating the Accounting course entails a comprehensive recalibration—not merely incorporating digital tools like automated reconciliation software or visualization dashboards, but reconceptualizing learning outcomes around financial literacy, critical evaluation of reporting assumptions, cross-functional communication of financial concepts, and application of accounting logic to real-world managerial dilemmas. This includes embedding case-based analysis of corporate disclosures, simulation exercises involving budgetary trade-offs under uncertainty, and reflective assignments linking financial metrics to environmental, social, and governance (ESG) performance indicators—all designed to cultivate discernment, contextual awareness, and principled judgment.

2. The Dilemmas of Traditional "Accounting" Course Teaching

2.1. The Contradiction between Computation Orientation and Management Demand in Course Objectives

The 'Accounting' course is typically delivered to first-year undergraduate students across economics and management disciplines in higher education institutions, functioning as a foundational platform course with broad disciplinary coverage. Historically, its pedagogical aims have emphasized procedural competence—particularly the acquisition of fundamental accounting methods and bookkeeping techniques—with the implicit expectation that learners develop proficiency in recording transactions and preparing basic financial statements. However, this computation-oriented framing diverges significantly from the practical requirements of most students, especially those pursuing non-accounting majors. For them, the essential competency lies not in performing journal entries or reconciling ledgers, but in interpreting financial information critically: recognizing how balance sheets, income statements, and cash flow statements reflect organizational performance, strategic positioning, and operational health—and leveraging such insights to inform resource allocation, risk assessment, and strategic planning. Even within accounting programs, this introductory course serves primarily as conceptual scaffolding; deeper technical mastery—including complex recognition principles, multi-step consolidation, and advanced measurement models—is systematically addressed in subsequent specialized courses such as Intermediate Financial Accounting and Advanced Financial Accounting. Consequently, the persistent misalignment between curricular design and learner expectations undermines

engagement, diminishes perceived relevance, and fosters disconnection among students who question the applicability of accounting knowledge to their academic trajectories and future professional roles. This gap calls for a pedagogical recalibration that prioritizes analytical literacy, contextual understanding, and decision-support capabilities over mechanical skill acquisition alone.

2.2. The Dual Weakness of the Technical and Value Dimensions in Teaching Content

In the traditional "Accounting" course curriculum, over fifty percent of instructional time is allocated to rote practice of debit-credit journal entries associated with procurement, production, and sales cycles—activities that reflect legacy transactional paradigms rather than contemporary professional demands. By contrast, essential competencies required in the digital-intelligent era—including critical interpretation of financial statements, systematic collection and cleaning of financial data, multivariate analysis using statistical and machine learning approaches, cross-industry benchmarking, and dynamic data visualization through interactive dashboards—are systematically underrepresented in both syllabi and classroom delivery. Furthermore, foundational data technologies such as relational database management systems (e.g., SQL), robotic process automation for reconciliations and reporting, and business intelligence platforms (e.g., Power BI or Tableau) are rarely integrated into pedagogical design. Equally significant is the persistent marginalization of value-oriented dimensions: discussions on accounting ethics emphasize procedural compliance rather than principled judgment; integrity and regulatory adherence are treated as static rules instead of evolving socio-technical responsibilities; and social responsibility—particularly environmental, social, and governance (ESG) reporting frameworks and sustainability accounting standards—is seldom embedded within core content [2]. This dual imbalance undermines holistic professional formation and limits graduates' readiness for complex, technology-mediated, and ethically grounded accounting practice.

2.3. The Deviation between Teaching Models and Competency Cultivation

Traditional teaching approaches in accounting education predominantly rely on instructor-centered lectures and repetitive procedural exercises, placing students in a largely passive role with limited opportunities for active engagement or contextual application. This mode of instruction often fails to bridge the gap between theoretical knowledge and authentic enterprise operations, resulting in superficial understanding of business processes [3]. Students may master mechanical tasks—such as recording journal entries or preparing trial balances—yet remain unable to interpret financial data within broader organizational strategies, assess operational efficiency, or evaluate cross-functional interdependencies between finance, supply chain, marketing, and human resources [4, 5]. Consequently, such pedagogical practices inadequately support the development of higher-order cognitive competencies, including analytical reasoning, integrative judgment, adaptive decision-making, and reflective professional practice—all of which are essential for contemporary accounting professionals operating in dynamic, digitally transformed business environments.

Addressing these systemic limitations necessitates a holistic reorientation of the 'Accounting' course rather than incremental adjustments. The course must be reconceptualized around the foundational premise that accounting functions not merely as a record-keeping discipline but as a strategic management tool enabling evidence-informed governance, performance evaluation, and value creation. Pedagogical objectives should therefore prioritize applied competence—emphasizing 'using accounting' to diagnose business challenges, simulate scenario-based decisions, and communicate insights across stakeholder groups [6, 7]. Instructional design must integrate business and financial perspectives through a coherent narrative thread—tracing how operational activities generate financial data, how financial outcomes inform managerial actions, and how digital technologies (e.g., cloud ERP systems, data visualization platforms, AI-augmented analytics) enhance both accuracy and strategic relevance. Furthermore, value-oriented education elements—including professional ethics, sustainability awareness,

and responsible innovation—should be seamlessly interwoven into case studies, simulations, and collaborative projects, ensuring alignment with national educational goals for cultivating well-rounded, socially conscious practitioners [1, 8].

3. Reshaping the Objectives of Course Reform

3.1. The Paradigm Shift from "Doing Accounting" to "Using Accounting"

The overall objective of the course is defined as cultivating versatile management talents capable of using accounting tools to understand enterprises, analyze enterprise performance, and support evidence-based decision-making. This pedagogical evolution reflects a fundamental reorientation of instructional emphasis: shifting from rote memorization of accounting rules toward deep comprehension of underlying economic activities; transitioning from mechanical training in debit-credit bookkeeping procedures to critical interpretation of financial statements and strategic analysis of managerial implications; and evolving from treating accounting as a set of isolated technical skills to recognizing it as an essential language for organizational communication and value creation. Specifically, this reorientation unfolds across three progressively integrated cognitive layers [9, 10]. First, students must grasp the generative logic of accounting information—how real-world economic transactions are systematically captured, classified, and aggregated within standardized accounting frameworks. Second, they must develop proficiency in extracting meaningful insights from financial reports—translating raw statement data into coherent narratives about financial position, operational efficiency, liquidity dynamics, and sustainability indicators. Third, students are expected to apply analytical techniques—including ratio analysis, trend evaluation, industry benchmarking, scenario modeling, and predictive diagnostics—to inform judgments on capital allocation, process optimization, governance enhancement, and proactive risk mitigation. These layers collectively foster both conceptual rigor and practical relevance, ensuring learners acquire not only foundational knowledge but also transferable competencies aligned with contemporary business complexity and digital transformation demands. Emphasis is placed on integrative thinking, ethical reasoning, and contextual adaptability—core attributes required for responsible professional practice in dynamic economic environments.

3.2. Constructing a "Four-in-One" Course Objective System

Centered on the core objective of 'using accounting'—that is, equipping students to actively apply accounting principles in real-world organizational contexts—a comprehensive and integrated course objective system structured around four interdependent dimensions is established: knowledge, competency, quality, and technology [6, 11]. The knowledge objective serves as the foundational pillar, requiring students not only to memorize accounting standards and procedures but also to grasp the underlying logic, causal relationships, and institutional frameworks governing how financial information is generated, validated, and reported. The competency objective constitutes the operational core, demanding proficiency in critically interpreting financial statements, diagnosing business performance trends, evaluating strategic alternatives, and translating accounting insights into actionable recommendations for managerial decision-making. The quality objective embodies the ethical and humanistic dimension, cultivating professional integrity, accountability toward stakeholders, sensitivity to societal impact, and sound judgment grounded in principled reasoning rather than mechanical rule-following. The technology objective functions as an enabling bridge, systematically developing students' capacity to leverage digital tools—including spreadsheet platforms, data visualization software, and basic analytics environments—for efficient data acquisition, cleaning, transformation, modeling, and communication. These four dimensions are deliberately designed to be mutually reinforcing: robust knowledge enables competent application; strong ethical grounding ensures responsible use of technical capabilities; and technological fluency amplifies both analytical rigor and value-oriented judgment—collectively advancing the goal of nurturing well-rounded,

ethically grounded, and digitally adaptive management professionals (As shown in Table 1).

Table 1. The "Four-in-One" Course Objective System of the "Accounting" Course

Dimension	Description of Course Objective
Knowledge objective	Master the basic principles and methods of accounting information generation; understand the accounting expression and economic consequences of business activities such as financing, operations, investment, and profit distribution.
Competency objective	Be able to interpret the balance sheet, income statement, and cash flow statement; use financial analysis tools to evaluate enterprise operating performance and risks; and provide data support for business decision-making.
Quality objective	Possess professional values of integrity, honesty, objectivity, and fairness; develop data sensitivity and business–finance integration thinking; understand the significance of accounting information quality for capital market order and social responsibility.
Technology objective	Be able to use advanced Excel functions, business intelligence tools (Power BI/Tableau), Python basic libraries, or online BI tools for the collection, cleaning, analysis, and visual presentation of financial data.

4. Reconstructing Teaching Content Based on the Business--Finance Integration Mainline with Digital-Intelligent Empowerment

4.1. From "Accounting Cycle" to "Business--Information--Decision"

The traditional pedagogical model, historically anchored in the sequential accounting cycle and emphasizing technical proficiency in journal entries, ledger posting, and financial statement preparation, has undergone a fundamental paradigm shift. It is now superseded by an integrated logical framework that traces the end-to-end value chain: enterprise business activities generate economic events, which are systematically captured and transformed into structured financial information; this information is then interpreted, analyzed, and contextualized through key financial statements and performance metrics; finally, such insights directly inform strategic and operational managerial decision-making. This restructured mainline—grounded in business-finance integration and augmented throughout by digital-intelligent tools—redefines the course's core mission: to cultivate business acumen and analytical judgment in future organizational leaders, rather than to produce technically skilled accounting practitioners. Consequently, instructional time allocation has been comprehensively revised, with reduced emphasis on mechanical transaction processing and expanded focus on cross-functional understanding, data-driven interpretation, and evidence-based reasoning. Curriculum modules have likewise been redesigned to reflect real-world enterprise workflows, ensuring alignment with contemporary corporate governance practices and evolving industry competency standards.

Within this reconceptualized teaching logic, the conventional linear progression—from source documents to trial balance to financial statements—no longer constitutes the central organizing principle. Instead, instruction begins with immersive exposure to authentic enterprise operations: procurement, production, sales, logistics, human capital deployment, and innovation investment. Students first develop contextual fluency in what businesses actually do before examining how those activities are translated into accounting representations—such as revenue recognition timing, asset classification criteria, or expense capitalization judgments. Subsequent learning emphasizes critical reading of financial statements—not as static outputs but as dynamic narratives reflecting underlying economic reality—and rigorous analysis of ratios, trends, cash flow patterns, and non-financial KPIs. Digital-intelligent technologies—including cloud-based ERP

simulations, AI-powered anomaly detection, interactive dashboard visualization, and predictive analytics modules—are embedded at every stage, enabling experiential learning, real-time feedback, and scalable practice. This coherent pedagogical arc—from business context to information synthesis to decision support—not only mirrors actual managerial cognition but also strengthens metacognitive awareness, systems thinking, and ethical judgment in complex, data-rich environments.

4.2. Reconstruction of Teaching Content Modules

Building upon the established pedagogical framework, the teaching content is systematically restructured to align with contemporary professional demands and competency-based learning outcomes. Instructional time allocation is recalibrated to prioritize higher-order cognitive skills: foundational computational procedures are streamlined to eliminate redundancy, while coverage of routine transactional entries is proportionally reduced to make space for more analytically rigorous material. In their place, dedicated instructional modules on financial statement interpretation—emphasizing vertical and horizontal analysis, ratio diagnostics, and trend identification—are introduced and substantially expanded [12]. Complementing this, comparative industry benchmarking exercises are integrated to cultivate contextual awareness, and applied financial analysis techniques—including cash flow sustainability assessment, earnings quality evaluation, and risk-adjusted performance metrics—are embedded throughout the curriculum. Furthermore, instruction in data collection methodologies, structured data organization principles, and analytical tool proficiency (e.g., spreadsheet modeling, pivot tables, and basic visualization) is distributed across all thematic units rather than isolated as standalone technical training, thereby reinforcing authentic application contexts. Integral to this curricular redesign is the seamless integration of value-oriented education: ethical reasoning, professional integrity, objective judgment, responsible data stewardship, and civic accountability are not treated as ancillary topics but are interwoven into disciplinary content delivery—ensuring that students internalize these principles through case-based discussion, reflective practice, and scenario-based decision-making tasks (As shown in Table 2).

Table 2. Reconstruction of Teaching Content for the "Accounting" Course

Module	Key Teaching Content	Integration Points of Digital-Intelligent Technology and Ideological–Political Education
Module 1: Overview and Accounting Thinking	Accounting objective, functions, accounting assumptions, information quality requirements	Discuss accounting information quality and integrity through cases; introduce the concept of financial databases
Module 2: Preparation for Accounting Business	Accounting elements, accounts, principles of debit–credit bookkeeping	Demonstrate T-accounts and trial balance with Excel; train data logic
Module 3: Accounting for Basic Business of Enterprises	Accounting treatment of financing, operating, investment, and profit distribution activities	Focus on the correspondence between business scenarios and accounting information; emphasize the business–finance perspective
Module 4: Accounting Cycle and Statement Preparation	Understanding the flow from vouchers to statements	Demonstrate the workflow of ERP systems and the automation scenarios of RPA in reimbursement, reconciliation, etc.
Module 5: Interpretation of Financial Statements	Structural and item analysis of the balance sheet, income statement, and cash flow statement	Conduct structural and trend analysis of real listed companies' statements using Excel

Module 6: Analysis of Financial Statements	Analysis of solvency, operating capacity, profitability, and comprehensive capacity	Introduce tools such as Power BI to build dynamic dashboards; discuss financial fraud and investor protection through cases
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4.3. Systematic Embedding of Digital-Intelligent Technology Tools

Digital-intelligent technology empowerment constitutes a pivotal dimension of curriculum innovation in the contemporary digital-intelligent era. The pedagogical objective is not to transform students into software developers or infrastructure designers, but rather to cultivate foundational technological fluency grounded in domain-specific application. This entails enabling learners to grasp the underlying operational principles of digital tools, critically assess business challenges through a technological lens, discern appropriate tool selection and deployment strategies for specific analytical tasks, and develop robust interdisciplinary communication competencies—particularly when collaborating with technical specialists in cross-functional teams. Such capabilities support informed judgment in dynamic organizational environments where data-driven insights increasingly inform strategic and operational decisions.

The integration of digital-intelligent technologies into course content follows a structured, pedagogically scaffolded approach organized across four interdependent layers: data collection, data processing, data visualization, and process cognition (Table 3). At the data collection layer, students engage with authoritative primary and secondary sources—including financial regulatory portals, national and international statistical databases, official stock exchange platforms, and corporate disclosure repositories—to acquire real-world industry benchmarks and enterprise-level financial disclosures. In the data processing layer, foundational competencies are developed using spreadsheet applications for ratio analysis and trend identification, while progressively introducing Python-based libraries such as Pandas and NumPy to perform automated data cleaning, transformation, and validation—emphasizing reproducibility and auditability. At the data visualization layer, students transition from static reporting to interactive analytics by utilizing platforms like Power BI or Tableau, constructing responsive dashboards that support scenario exploration, drill-down analysis, and stakeholder-oriented storytelling. Finally, at the process cognition layer, curated video demonstrations and authentic case studies illustrate intelligent automation tools—including robotic process automation (RPA) and low-code workflow engines—within accounting operations, prompting reflective inquiry into evolving role boundaries, augmentation versus replacement dynamics, and the heightened importance of human oversight in judgment-intensive domains such as audit planning, risk assessment, and ethical decision-making.

Table 3. Application of Digital-Intelligent Technology Tools in the "Accounting" Course

Teaching Link	Technological Tools	Typical Application Scenarios	Competency Cultivation Objective
Data collection	Financial websites, financial databases, stock exchanges, corporate official websites, etc.	Download financial statements and industry data of listed companies	Awareness of data acquisition and ability to judge data sources
Data processing	Excel, Python, etc.	Data cleaning, structural conversion, indicator calculation, etc.	Logical thinking and basic data processing ability
Data visualization	Excel, Power BI, etc.	Building financial analysis dashboards, trend charts, structural charts, etc.	Data presentation and business insight ability

Process cognition	RPA, ERP systems, etc.	Understanding the substitution effect of automation on accounting, reimbursement, reconciliation, etc.	Technological sensitivity and awareness of job transformation
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This layered integration pathway directly supports the development of versatile professional competencies aligned with the tripartite framework of 'business acumen, financial expertise, and technological literacy,' wherein digital fluency functions not as an end in itself but as an enabler of value-adding managerial insight and evidence-informed decision-making [13, 14]. As students progress through these technological learning experiences, they deepen their understanding that digital-intelligent tools significantly enhance the timeliness, granularity, and analytical depth of accounting information; however, the interpretive validity, contextual relevance, materiality judgments, and ethical implications embedded in financial reporting remain fundamentally dependent on disciplined professional reasoning, rigorous adherence to accounting standards, and unwavering commitment to integrity, objectivity, and public interest—core tenets of the accounting profession that no algorithm can replicate or supplant.

5. Innovation of the Teaching Model: Blended Teaching and the Integration of "Teaching--Learning--Doing"

5.1. Online--Offline Blended Teaching Process

A blended teaching model centered on the complementary synergy of online knowledge construction and offline in-depth interaction has been systematically implemented throughout the course. Online components leverage nationally certified educational platforms—including Yunbanke and Rain Classroom—to deliver structured micro-lectures, authentic case backgrounds, curated reading materials, and formative self-assessment quizzes. This approach effectively shifts foundational knowledge acquisition to the pre-class phase, thereby optimizing classroom time for higher-order cognitive engagement. During face-to-face sessions, instructional emphasis is deliberately redirected toward critical analysis of core conceptual challenges, collaborative case-based inquiry, and scaffolded practical application—strategically mitigating the persistent pedagogical inefficiency wherein students passively receive information during lectures yet fail to retain or transfer it beyond the classroom environment. The design intentionally decouples content transmission from meaning-making, ensuring that knowledge delivery occurs asynchronously while deep learning, dialogue, and skill development unfold synchronously under guided facilitation [15].

The pedagogical workflow is rigorously structured into six interdependent, iterative stages: pre-class self-study → online self-test → intensive in-class lecture → group discussion → simulation and practice → summary and reflection. In the pre-class self-study stage, learners independently engage with multimedia resources to establish baseline conceptual understanding and preliminary cognitive frameworks. The online self-test stage employs adaptive assessment mechanisms that generate immediate, granular feedback, enabling both students and instructors to pinpoint specific knowledge gaps and misconceptions prior to class. During the intensive in-class lecture, the instructor synthesizes common difficulties identified through data analytics and delivers targeted, conceptually dense explanations grounded in disciplinary rigor. The group discussion stage activates social constructivist principles by assigning real-world financial cases—drawn from publicly disclosed annual reports and regulatory filings—for structured debate, role-play, and peer-led analysis. In the simulation and practice stage, students apply quantitative and qualitative analytical tools to actual enterprise financial statements, performing ratio analysis, trend evaluation, and risk assessment under time-bound, scenario-based constraints [16, 17]. Finally, the summary and reflection stage requires students to articulate synthesized insights, document problem-solving pathways, and

critically evaluate their own metacognitive growth. This cyclical architecture ensures continuous alignment between input, processing, output, and feedback—transforming passive reception into active competence development and fostering sustained progression from declarative comprehension to procedural mastery and reflective judgment.

5.2. Project-Driven Learning Centered on Real Enterprise Research

In teaching, each student or study group is required to select a listed company as the research object throughout the entire course, completing the whole-process research-based learning of "enterprise acquaintance---business mapping---statement interpretation---financial analysis." This pedagogical design systematically integrates task-driven and project-based learning (PBL) principles, anchoring theoretical instruction in authentic, publicly available financial and operational data. By engaging students in sustained, longitudinal analysis—from initial industry contextualization through to advanced diagnostic evaluation—the approach fosters cognitive scaffolding that supports progressive knowledge internalization. The selection of listed enterprises ensures access to standardized, audited disclosures, thereby reinforcing data integrity, transparency, and regulatory compliance as foundational elements of financial education. Moreover, the structured progression cultivates methodological discipline: students learn not only *what* financial metrics indicate, but also *how* and *why* they are constructed, interpreted, and limited by accounting standards, reporting conventions, and real-world business dynamics. This alignment between curriculum architecture and professional practice significantly enhances experiential authenticity, preparing learners for evidence-informed decision-making in complex organizational environments [18].

In the "enterprise acquaintance" stage, students conduct comprehensive background research on the selected company's sectoral positioning, value chain configuration, revenue streams, and strategic differentiation within its competitive landscape. In the "business mapping" stage, they systematically trace capital flows across financing decisions (e.g., equity issuance, debt structuring), investment activities (e.g., R&D allocation, M&A strategy), operating processes (e.g., working capital management, supply chain efficiency), and profit distribution mechanisms (e.g., dividend policy, retained earnings utilization). In the "statement interpretation" stage, students perform granular extraction and cross-statement reconciliation—linking line items across the balance sheet, income statement, and cash flow statement—to identify underlying economic realities obscured by accounting treatments [12]. In the "financial analysis" stage, they apply ratio analysis (liquidity, solvency, profitability, efficiency), multi-year trend analysis (growth trajectories, volatility patterns), and peer-group benchmarking (relative performance, industry norms) to assess sustainability, resilience, and strategic alignment. Crucially, students are required to update their analyses quarterly using newly released filings, thereby cultivating habits of continuous monitoring, critical source evaluation, and awareness of temporal decay in financial intelligence—effectively bridging conceptual abstraction with dynamic, real-time enterprise cognition and mitigating the persistent theory–practice gap observed in conventional pedagogical models.

6. Conclusion

The evolving landscape of business education in the digital-intelligent era necessitates a fundamental reorientation of the Accounting course—shifting emphasis from passive knowledge acquisition toward active competency development and ethical value formation. This reorientation is grounded in four interlocking pedagogical pillars: first, anchoring instruction around the practical application of accounting—emphasizing how accounting functions as a dynamic decision-support system rather than a static set of rules; second, structuring content through the lens of business–finance integration, enabling students to trace financial data flows across operational, strategic, and governance domains; third, systematically embedding digital-intelligent tools—including cloud-based ERP platforms, automated reconciliation systems, data visualization

dashboards, and AI-augmented audit simulators—into every phase of learning, from concept introduction to capstone application; and fourth, integrating value-oriented reflection through discipline-specific ethical frameworks, case-based moral reasoning exercises, and contextualized discussions of accountability, transparency, and stewardship in organizational settings. Empirical observation of this approach indicates measurable improvements in student engagement, sustained analytical persistence when confronting ambiguous financial scenarios, and demonstrable growth in cross-functional thinking—particularly in linking financial outcomes to operational choices and sustainability metrics.

Curricular evolution remains an ongoing, adaptive endeavor. Emerging technologies—including generative artificial intelligence, large language models capable of financial narrative generation, and autonomous financial agents performing real-time forecasting and anomaly detection—are reshaping both professional practice and educational expectations. These developments require continual recalibration of learning objectives, assessment modalities, and instructional scaffolding—not merely to keep pace with tool proliferation, but to foreground enduring human capacities: critical judgment in interpreting algorithmic outputs, contextual discernment when evaluating model assumptions, and principled responsibility in deploying financial insights for organizational and societal benefit. Future iterations will deepen synergies between Accounting instruction and broader New Business Education initiatives, with particular attention to cultivating graduates who possess integrated business acumen, robust analytical fluency across structured and unstructured data sources, and a reflexive commitment to integrity, equity, and long-term stakeholder value creation.

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References

1. K. Srirejeki and J. Liang, "Artificial intelligence in accounting: Implications for practices and education," *SAR (Soedirman Accounting Review): Journal of Accounting and Business*, vol. 9, no. 1, pp. 99–110, 2024.
2. R. Romero-Carazas et al., "Augmented accounting education using machine learning and decision-making in higher education," in *Frontiers in Education*, vol. 11, p. 1861202, Frontiers Media SA, Jul. 2026.
3. P. Petrova, "AI-Driven Learning in Accounting: New Approach to Accounting Education," in *Proceedings of the International Conference on Business Excellence*, vol. 20, no. 1, pp. 3317–3331, Bucharest University of Economic Studies, 2026.
4. P. Preslav, B. Ivanov, and D. Preslav, "Digital transformation in financial and management accounting: the importance of higher education," *Mokslo taikomieji tyrimai/Applied Research*, vol. 2, no. 21, pp. 71–77, 2025.
5. A. Anggono et al., "The Effect of AI on Financial Statement Preparation: An Experimental Study of Accounting Students," *Jesya*, vol. 9, no. 2, pp. 1409–1419, 2026.
6. A. Szadziewska and J. Kujawski, "Artificial intelligence as perceived by accounting students. An observation from Poland," *Zeszyty Naukowe. Organizacja i Zarządzanie/Politechnika Śląska*, no. 203, pp. 523–540, 2024.
7. X. Zhang and X. Zhang, "Research on the Construction Path of the Practical Teaching Resource Database for Accounting Major Driven by Artificial Intelligence," *Journal of Educational Theory and Practice*, vol. 3, no. 1, 2026.
8. P. Mititean and P. D. Becheș, "Artificial Intelligence and the Transformation of Accounting Education: A Bibliometric and Thematic Review," in *Proceedings of the International Conference on Business Excellence*, vol. 20, no. 1, pp. 4174–4187, Bucharest University of Economic Studies, 2026.
9. D. K. Feltham, M. A. Weinkauff, S. Ghosh, and J. B. Malcolm, "2025 and Beyond: Redefining Accounting Education for an AI-Driven World," SSRN, 2025. [Online]. Available: <https://ssrn.com/abstract=5385522>.
10. E. Z. Rojas and V. H. P. Rodriguez, "The Digital Divide in Accounting Education: Challenges and Solutions," *Journal of Cultural Analysis and Social Change*, pp. 823–833, 2025.
11. R. Zhang, X. Zhang, and Y. Zhang, "Research on the Teaching Reform Path of Accounting and Finance Major Courses under Artificial Intelligence," in *2024 5th International Conference on Modern Education and Information Management (ICMEIM 2024)*, pp. 438–447, Atlantis Press, Nov. 2024.

12. S. S. Mpanza, "Examining the Effect of Technological Readiness and Accounting Students' Perceptions of Adopting Artificial Intelligence Within Higher Education," *The Journal of Accounting and Management*, vol. 16, no. 2, pp. 16–26, 2026.
13. M. J. Rahman, T. Ranais, and H. Zhu, "Artificial Intelligence and Accounting Education."
14. M. Dandi, "Reskilling ahead of the evidence: A systematic review of artificial intelligence, accounting education and professional competence," *Accounting and Finance Research Letters*, vol. 5, no. 1, pp. 64–78, 2026.
15. A. Rahmawati and R. Anggraini, "Are Accounting Students Ready to Face Artificial Intelligence in Accounting?," in *Proceedings of the 7th International Conference on Applied Economics and Social Science (ICAESS 2025)*, p. 82, Springer Nature, Feb. 2026.
16. S. Leitner-Hanetseder et al., "The Need for an Adapted Skillset for Accountants—What Does Accounting Education Literature Tell Us?," in *Artificial Intelligence in Accounting*, pp. 76–97, Routledge, 2022.
17. E. Kärkinen, "Educational technology in online accounting education—a systematic mapping study."
18. H. Palácios and M. J. Sousa, "Accounting Education: New Pedagogies and Digital Approaches Based on the Research Agenda," in *Technologies for Sustainable Global Higher Education*, pp. 143–186, Auerbach Publications, 2023.

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