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Application Status and Improvement Suggestions for Digital Teaching Resources in Management Accounting Under the Background of Digital Transformation

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Abstract: The global wave of digital transformation is driving enterprise innovation and presenting new requirements for the cultivation of accounting talent. As a key branch of the accounting discipline, management accounting holds significant value in the construction of digital teaching resources. At present, although the digital teaching resources for management accounting can meet the needs of basic instruction, there are notable shortcomings in terms of content timeliness, knowledge breadth, technical support, and practical applicability, leading to a mismatch between supply and demand. This paper further analyzes the root causes of these issues and proposes pathways such as building a resource system based on job competency standards, integrating ideological and political elements into the curriculum, and establishing a diversified collaborative supply model involving government, schools, industries, and enterprises. The aim is to cultivate high-quality and skilled accounting talents that align with market needs.

Keywords: Digital Transformation; Management Accounting; Digital Teaching Resources

Introduction

With the development of digital technologies, enterprise financial management models are undergoing profound changes, bringing both challenges and opportunities to accounting talent cultivation[1]. Management accounting plays a central role in strategic decision-making and operational control within enterprises. Therefore, the digital upgrading of teaching resources for management accounting is essential under the trend of digital transformation. However, current digital teaching resource construction in management accounting at higher vocational colleges is constrained by rigid educational concepts, disconnection between

teaching content and real job requirements, and insufficient technical support. Thus, exploring the current application status of digital teaching resources in management accounting and proposing feasible improvement strategies is of great practical significance and value under the background of digital transformation.

1. New Requirements for the Construction of Digital Teaching Resources in Management Accounting in the Digital Era

The digital revolution, with data as its core production factor, has introduced innovative and multidimensional requirements for the construction of digital teaching resources in management accounting at higher vocational colleges. These new demands extend across thinking models, educational philosophy, content design, and resource development mechanisms, and can be summarized in the following seven aspects: First, a shift in mindset. It is necessary to move from the traditional focus on "calculation over analysis" toward data-driven decision-making. This philosophy should permeate the entire process of resource design. By integrating real-world corporate cases, students can be guided to apply data mining techniques to optimize management and control strategies, thereby cultivating data-based decision-making competence. Second, an upgrade in educational philosophy. The focus should shift from a supply-oriented to a demand-driven model. Through student learning diagnostics, enterprise visits, and industry analysis, resources should be precisely aligned with student needs, industry standards, and job requirements to enhance learners' workplace adaptability. Third, resource integration. The existing "fragmented and isolated" state of digital resources must be broken. It is essential to integrate online courses, virtual simulation systems, enterprise case databases, and digital practice toolkits to build an interconnected resource ecosystem that enables seamless linkage among learning, practice, and application. Fourth, content reconstruction. The curriculum focus should evolve from accounting-centered to multi-dimensional integration. While maintaining core topics such as cost accounting and budget preparation, digital tools for accounting operations should be embedded to extend coverage to frontier areas such as data analytics, strategic decision-making, and the integration of business and finance. Fifth, innovation in delivery formats. Teaching materials should transform from static texts to dynamic, interactive formats. By leveraging digital technology, interactivity can be enhanced—for example, developing micro-courses embedded with knowledge-check modules to increase student engagement and participation. Sixth, tool adaptation. The technical toolkit should move beyond basic office software such as Excel toward the adoption of mainstream enterprise financial data analytics tools such as Power BI and Tableau. Practical, hands-on exercises with these platforms can help students master applied digital analysis skills. Seventh, transformation of the construction model. The traditional "single-player" approach dominated by institutions or individual teachers should evolve into a collaborative co-construction model involving government, schools, educators, and enterprises. This multi-stakeholder ecosystem will help bridge the gap between resource supply and job competency requirements.

2. Problems and Causes in the Application of Digital Teaching Resources for Management Accounting in Higher Vocational Colleges

2.1 Existing Problems in the Application of Digital Teaching Resources for Management Accounting

Although current digital teaching resources in management accounting can generally meet basic instructional needs, they still exhibit significant deficiencies in terms of update frequency, content diversity, technological support, and practical relevance. These shortcomings limit their ability to meet the personalized learning needs of teachers and students. The main problems are as follows:

2.1.1 Misalignment Between Resource Content and Industry Development

As a key link connecting enterprise operations and strategic decision-making, the knowledge and skill system of management accounting is constantly shaped by factors such as revisions to accounting standards, adjustments to national tax policies, and the rapid evolution of digital technologies. However, the update cycle of existing teaching resources remains long. According to teacher interview data, 70% of teachers report that the current digital teaching resources for management accounting are updated only once every six months to a year, making it difficult to reflect

the latest business scenarios or job competency requirements. This has resulted in a negative chain reaction of "outdated resource content-weak student practical ability-low job adaptability."

2.1.2 Insufficient Integration of Digital Technology into the Teaching Process

In most higher vocational institutions, digital technology in management accounting education is still treated merely as a tool for resource storage and delivery. While online platforms are used for basic functions such as distributing exercises and sharing courseware, the deeper potential of technology—in areas like learning analytics, personalized content delivery, and process-based evaluation—remains underutilized[2]. Most teachers still rely on a "video playback + exercise assignment" model, failing to design interactive learning activities aligned with the decision-oriented nature of management accounting. For example, in teaching Cost-Volume-Profit (CVP) Analysis, only 10% of teachers use data visualization tools to help students dynamically observe relationships among sales volume, cost, and profit, while 90% still use static charts. As a result, students' data analytical thinking is inadequately developed. Moreover, assessment methods remain dominated by final written examinations, emphasizing outcomes over learning processes. This "result-oriented" evaluation system limits the educational potential and functional value of digital teaching resources.

2.1.3 Weak Multi-Stakeholder Collaboration Mechanisms

A "government-school-enterprise-association" collaborative model is crucial for resolving the lag in digital resource development[3]. However, research reveals low participation and weak engagement among stakeholders, leading to ineffective coordination. From a school-enterprise collaboration perspective, the lack of a benefit-sharing mechanism is a major constraint. Enterprises must invest manpower and resources and face risks such as the disclosure of core business data, yet receive little direct economic return. Consequently, cooperation often remains at a superficial level—mainly providing internship placements—without deep involvement in resource development or content design. From the perspective of industry associations, the absence of regular communication channels between associations and vocational colleges prevents the timely transmission of the latest industry demands, technology trends, and competency standards. This disconnection results in a misalignment between teaching resource construction and actual industry development.

2.1.4 Insufficient Funding Restricts High-Quality Resource Development

The creation and maintenance of digital teaching resources require sustained financial investment across multiple domains, including resource development, platform maintenance, and faculty training. Yet, most higher vocational colleges—especially private ones—face severe financial constraints. Their funding primarily depends on limited institutional budgets and small government subsidies, with minimal participation from enterprises or social capital. Additionally, much of the available funding is allocated to hardware acquisition (e.g., computers, servers), while "soft power" development—such as digital content creation, teacher training in digital pedagogy, and online platform maintenance—receives inadequate investment. As a result, resources are often "built but not effectively used or sustainably updated", severely restricting the high-quality and sustainable development of digital teaching resources.

In summary, the digital teaching resources for management accounting education suffer from a core problem of supply-demand misalignment. Addressing this issue requires systematic reform.

2.2 Analysis of the Causes of Problems in the Construction of Digital Teaching Resources for Management Accounting

From the cognitive perspective, many colleges have yet to transcend the limitations of traditional teaching mindsets. Although digital formats have been adopted, the core of resource development still revolves around basic accounting and recording, with insufficient integration of data-driven decision-making concepts. The principle of "demand-driven construction" has not been effectively implemented. Moreover, the lack of systematic investigation into enterprise talent needs prior to resource development has resulted in a mismatch between teaching content and job competency standards, thereby weakening the practical relevance and application value of teaching

resources. From the resource architecture perspective, there exists a bias toward "quantity over quality." Many resources remain outdated, failing to incorporate the latest advancements in big data, artificial intelligence, and other emerging technologies. Furthermore, the lack of interconnection among different resource types prevents the formation of a systematic knowledge framework and coherent learning pathway. From the technological carrier perspective, static text-based materials still dominate, while interactive digital resources are relatively scarce. The introduction of specialized digital tools tends to be superficial—limited to software installation packages and basic operation tutorials—without matching practical training projects or application guidelines. Consequently, students find it difficult to develop genuine proficiency in the practical use of these tools. From the support and assurance perspective, teachers' digital teaching competencies require further improvement, and scientific, effective evaluation systems for resource utilization remain underdeveloped. In addition, the lack of stable financial investment and professional technical teams has hindered continuous optimization and iterative upgrading of digital teaching resources.

3. Recommendations for Improving the Construction of Digital Teaching Resources for Management Accounting under Digital Transformation

3.1 Building a Resource System Centered on Enterprise Job Competency Standards

To cultivate high-quality, skilled accounting professionals capable of supporting enterprise management decision-making, the development of management accounting teaching resources must align closely with industry evolution and enterprise competency requirements. Resource design should be practice-oriented and application-driven, integrating new technologies, processes, and methods throughout the teaching process. By linking resource development to core job functions, students can enhance their ability to apply knowledge flexibly and solve real-world problems in their professional careers.

Based on the competency demands of digital transformation for management accountants, the resource content system can be optimized as follows: First, incorporate authentic enterprise management accounting project cases and develop matching practical resources covering key areas such as financial data analysis, cost control, budgeting, and risk management. This helps students strengthen data-handling and decision-support skills in real-world contexts. Second, establish a dynamic resource updating mechanism by forming a joint team of professional teachers, enterprise financial experts, and industry scholars. This team should monitor updates to accounting standards, tax policies, and technological trends to ensure teaching resources remain synchronized with industry practice. Third, design the resource structure based on a tiered model of "basic-intermediate-advanced" modules to meet the diverse learning needs and career plans of different student groups.

3.2 Integrating Ideological and Political Education to Strengthen the Educational Function of Resources

Given the accounting profession's emphasis on integrity and responsibility, ideological and political elements should be systematically embedded into the construction of digital teaching resources for management accounting. First, deeply explore the ideological implications within accounting industry cases. Through in-depth analysis of financial fraud incidents and vivid presentation of exemplary professional conduct, students can internalize professional ethics such as "integrity first, moral conduct foremost, adherence to standards, and rejection of falsification." Second, incorporate values such as "patriotism" and "social responsibility" into resource design. For example, explaining the strategic significance of taxation to national development or illustrating how management accounting supports corporate sustainability can guide students to understand the broader social role of their profession. Third, promote the integration of ideological and political elements with professional knowledge to avoid superficial separation ("dual-track" teaching). This approach nurtures compound management accounting professionals who possess both solid technical skills and sound moral integrity.

3.3 Building a Multi-Party Collaborative Resource Supply Model of "Government-School-Industry-Enterprise"

Supported by collaborative governance theory, a multi-

stakeholder ecosystem for resource supply should be established[4]. Government and educational authorities can formulate policy guidelines and set up special funding programs to steer resource development toward greater standardization and normalization, while encouraging in-depth school-enterprise cooperative research. Enterprises, as practice-oriented entities, should open access to real project data, integrating job competency standards, business scenarios, and operational specifications into resource development. Professional accounting associations can leverage their expertise to collect the latest industry cases of digital technology application, providing professional and forward-looking perspectives for resource construction. Colleges as the primary implementing bodies, should build collaborative platforms to coordinate multi-party resources and needs, strengthen teachers' digital literacy, and enhance their ability to transform enterprise digital practice cases into effective teaching materials.

3.4 Developing an Intelligent Teaching Resource System to Enhance Application Effectiveness and Personalization

By leveraging artificial intelligence and other advanced technologies, an intelligent teaching resource system can be established to meet students' individualized learning needs. First, the functionality of resource platforms should be optimized by creating a "demand feedback zone," where review committees composed of enterprise mentors, professional instructors, and student representatives regularly identify high-frequency needs and update resource content accordingly. Second, the course evaluation mechanism should be reformed to include students' effective use of resources as an integral part of performance assessment, thus motivating deeper engagement with digital materials. Third, intelligent interactive teaching tools with built-in AI-based Q&A capabilities should be developed to provide real-time autonomous learning support. Fourth, a personalized learner profile system should be constructed to analyze behavioral learning data and deliver targeted resource recommendations, satisfying the diverse learning needs of different student groups and promoting precision learning.

Conclusion

The construction of digital teaching resources for management accounting represents a core initiative in advancing the digital transformation of big data and accounting disciplines. It is essential to move beyond the misconception of "emphasizing technology accumulation while neglecting practical application." Guided by the principle of precise alignment between supply and demand, digital resource development should promote deep integration between teaching content and accounting work scenarios, ensure effective synergy between technological tools and instructional decision-making, and enhance collaborative participation among schools, enterprises, teachers, and students.

Through such comprehensive reform, digital teaching resources can achieve real resonance with industry practices, provide solid talent support for the accounting sector's digital transformation, and contribute to the high-quality development of vocational education.

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