

Research on the Reform of the New Business Talent Cultivation Model in Vocational Undergraduate Colleges in Hainan Province in the Era of Digital Economy

Xiaonan Li*

School of Finance and Economics, Hainan Vocational University of Science and Technology,
Haikou 571126, China

*Corresponding Author

Abstract

The vigorous development of the digital economy has profoundly reshaped business forms and organizational models, placing new demands on the competency structure of business talents. Against the backdrop of the Hainan Free Trade Port construction, vocational undergraduate colleges, as crucial bases for cultivating high-quality technical and skilled talents, face transformative pressure regarding their new business talent cultivation models. Based on the actual context of Hainan Province, this paper analyzes the new characteristics of the demand for business talents in the digital economy era, examines the current practical dilemmas faced by vocational undergraduate colleges in Hainan regarding cultivation objectives, curriculum systems, practical teaching, and faculty development, and proposes reform pathways aligned with regional development needs. The aim is to provide a steady supply of high-level, compound technical and skilled talents who integrate digital intelligence, business expertise, and industry knowledge for the construction of the Hainan FTP.

Keywords

Digital Economy; Hainan Free Trade Port; Vocational Undergraduate; New Business Disciplines; Talent Cultivation Model.

1. Introduction

With the deep penetration of digital technologies such as big data, artificial intelligence, cloud computing, and blockchain, the scale of China's digital economy continues to expand, becoming a key engine for economic growth. The boundaries of business activities are being dissolved, leading to revolutionary changes in corporate operational models, management decision-making methods, and marketing channels. This transformation directly impacts talent demand. Traditional business education, particularly vocational undergraduate education targeting front-line management and service positions, which primarily focuses on knowledge transmission and skill training, now faces systemic challenges from philosophy to practice.

As a free trade port with Chinese characteristics, Hainan Province shoulders the national strategic mission of building the "Three Zones and One Center." Following the full-island customs closure scheduled for December 18, 2025, Hainan will embrace a higher level of openness. Leading industries such as modern services, high-tech industries, and tourism are experiencing a surge in demand for compound business talents possessing an international perspective, digital literacy, and innovative capabilities. As a high-level category within the vocational education system, whether the new business talent cultivation model of vocational undergraduate education can adapt to the dual dynamics of the digital economy and FTP construction directly impacts the quality and suitability of talent supply. Therefore, exploring reform pathways for cultivating new business talents in vocational undergraduate education

that are suited to the digital economy era and Hainan's regional characteristics holds significant practical importance.

2. Analysis of Demand Characteristics for New Business Talents in Hainan's Vocational Undergraduate Education in the Digital Economy Era

In the digital economy era, the structure of talent demand undergoes fundamental transformation. For Hainan, situated at the forefront of FTP construction, this transformation manifests as compound requirements across the following three dimensions:

2.1. Deep Integration of Digital Literacy and Business Acumen

Traditional business education emphasizes singular skills like accounting, document processing, and counter service. In a digital business environment, whether in cross-border e-commerce operations, smart scenic area management, or supply chain finance analysis, practitioners are required to possess data collection, processing, and analysis capabilities[1]. Business talents cultivated by Hainan's vocational undergraduate programs should not merely be operators, but rather "digital business professionals" capable of optimizing processes, identifying business opportunities, and aiding decision-making through digital tools. For instance, in Hainan's booming offshore duty-free and cross-border e-commerce sectors, there is a particular shortage of compound talents who understand retail management and can leverage data to gain consumer insights.

2.2. Organic Unity of International Perspective and Local Practice

The essence of the Hainan FTP is "within national borders, outside customs control." This implies that a large number of enterprises will directly engage in international competition and cooperation. Vocational undergraduate graduates will encounter internationalized work scenarios, such as handling foreign-related business communication, adhering to International Financial Reporting Standards (IFRS), and understanding international logistics rules. Consequently, talents must possess cross-cultural communication skills and knowledge of international norms. Simultaneously, this internationalization must be rooted in a profound understanding of Hainan's local industries, such as tropical agriculture and tourism, enabling the integration of international experience with local realities to solve practical front-line problems.

2.3. Intrinsic Drive for Cross-disciplinary Integration and Continuous Learning

The digital economy breaks down industrial barriers, making sector boundaries increasingly blurred. Cross-disciplinary positions like business plus tourism, business plus information technology, and business plus logistics are continually emerging. The rapid iteration of technology also signifies a shortening half-life of job skills. Vocational undergraduate education should cultivate not only individuals competent for current roles but also lifelong learners and developers capable of cross-boundary skill transfer[2]. Facing the reality of dynamic adjustments in Hainan's industrial structure, students must be able to flexibly adapt to job changes and continuously update their knowledge and skills throughout their careers.

3. Current Dilemmas in Cultivating New Business Talents in Hainan's Vocational Undergraduate Colleges

In recent years, Hainan has preliminarily established a vocational undergraduate system through resource integration and institutional upgrading. However, confronted with the rapid

impact of the digital economy and the high-standard requirements of FTP construction, the lag inherent in the talent cultivation model is becoming increasingly apparent.

3.1. Lagging Cultivation Objectives Behind Industrial Digitalization

Some institutions still hold ambiguous understandings of the positioning of vocational undergraduate education, easily falling into two misconceptions: firstly, emulating regular undergraduate programs by emphasizing disciplinary systematicity while neglecting the advanced nature of technical skills; secondly, adhering to the cultivation model of higher vocational colleges, being content with singular skill training, and lacking the cultivation of compound abilities and innovative thinking. Cultivation plans show insufficient responsiveness to new positions spawned by the digital economy, such as digital operations, business data analysis, and intelligent finance & taxation. There exists a misalignment between the target specifications and the actual needs of the industry. For example, the modern service industry cluster in Haikou's Jiangdong New Area requires not only traditional accountants but also compound talents proficient in utilizing financial software for integrated business-finance management. However, the pace of adjusting relevant cultivation objectives remains relatively slow.

3.2. Superficial Integration of Curriculum Structure with Digital Technology

A prevalent "two-layer skin" phenomenon exists in current curriculum design. On one hand, traditional business courses such as Basic Accounting and Marketing still dominate, with content updates lagging and failing to fully incorporate digital elements. On the other hand, newly added courses like Big Data Analysis and Artificial Intelligence Applications are often offered independently, disjointed from core business courses, making it difficult for students to develop a systematic thinking of applying technology to business scenarios. Teaching materials are also relatively outdated, lacking resources that reflect real business cases from the Hainan FTP, such as smart logistics at Yangpu Port or medical and health business innovation cases from Boao Lecheng.

3.3. Ineffective Connection of Practical Teaching Systems with Real-world Scenarios

While all institutions have established on-campus training bases, simulation software and environments often lag behind the actual business systems used in enterprises. Opportunities for students to deeply participate in real enterprise projects and access real enterprise data remain scarce. Hainan hosts numerous small, medium, and micro-enterprises with uneven digital foundations. The depth of industry-education collaboration is insufficient, often limited to providing sporadic internship positions. There is a lack of deep integration mechanisms such as jointly establishing industry colleges, co-developing curricula, and co-implementing teaching. This results in a gap between students' practical abilities and enterprise expectations.

3.4. Urgent Need to Enhance the Digital Competence of "Dual-Qualified" Teachers

Teachers are the key to reform. Currently, within the business faculty of Hainan's vocational undergraduate colleges, the proportion of "dual-qualified" teachers possessing substantial industry experience needs improvement, and compound teachers with digital technology application skills are even scarcer. Most teachers excel in theoretical instruction but are unfamiliar with the frontier dynamics of industrial digital transformation and the practical operation of enterprise digital management systems, making it difficult to effectively guide students in teaching. Simultaneously, the training system for teachers' digital teaching abilities is insufficiently systematic, and mechanisms to incentivize teachers to engage in enterprise practice and digital transformation research remain underdeveloped.

4. Reform Pathways for the New Business Talent Cultivation Model in Hainan's Vocational Undergraduate Education in the Digital Economy Era

To resolve the aforementioned dilemmas, a systematic reconstruction from philosophy to action is necessary, building a new business talent cultivation model that matches the digital economy and integrates with Hainan FTP construction.

4.1. Reconstructing Cultivation Objectives: Establishing a Compound Positioning of "Digital-Intelligence Craftsmen plus Business Management"

New business disciplines in vocational undergraduate education should clearly define their talent cultivation type, distinct from the academic orientation of regular undergraduate programs and the skill orientation of higher vocational colleges[3]. It is recommended to establish a positioning focused on cultivating high-level, compound technical and skilled talents characterized as "digital-intelligence craftsmen plus business management." This implies that graduates should possess three core competencies. First, Business Operation Capability: Proficiency in the core business processes and norms of one or more business specializations such as financial management, marketing, and e-commerce. Second, Digital Technology Application Capability: The ability to skillfully utilize tools like business data analysis, digital marketing, and intelligent finance & taxation to solve business problems. Third, Innovation and Cross-cultural Capability: The ability to identify problems, integrate resources, and innovate services in an open environment, coupled with the communication and collaboration competencies required to adapt to internationalized work settings. This objective should be decomposed and integrated into the talent cultivation plans of each major, ensuring it is teachable, learnable, and assessable.

4.2. Optimizing the Curriculum System: Constructing a Modular Curriculum with a Shared Foundation, Specialized Middle Layer, and Interdisciplinary Upper Layer

Breaking away from the traditional discipline-oriented curriculum system, a competency-based modular curriculum should be constructed.

The first is the bottom sharing, mainly for general education and platform courses. To strengthen digital general knowledge, all business students must take courses such as "Fundamentals of Business Data Analysis", "Business Application of Artificial Intelligence", and "Digital Ethics" to consolidate the foundation of digital literacy. At the same time, it integrates the characteristic courses of Hainan Free Trade Port, such as "Hainan Free Trade Port Policies and Regulations" and "Cross-cultural Business Communication".

Then there is the separation of the middle level, which is mainly for professional core courses. The core courses of each major should be upgraded digitally and intelligently. For example, the accounting major has been upgraded to intelligent finance and taxation, and integrated into the application of RPA financial robots; e-commerce majors strengthen omni-channel digital operations, live e-commerce and content marketing; The logistics major focuses on smart supply chain management. The course content needs to absorb new technologies and new norms in the industry in a timely manner.

Finally, there is the high-level mutual selection, mainly for expansion and cross-class. It is necessary to set up cross-professional elective modules, such as cross-border e-commerce operation micro-majors, tourism big data analysis micro-directions, etc., to encourage students to choose courses across borders according to their interests and career plans and cultivate compound abilities.

4.3. Deepen the Integration of Industry and Education, and Create A Practical Education Platform that Combines School and Enterprise, Virtual and Real

Make full use of the industrial agglomeration advantages of Hainan Free Trade Port to build a deep-level and all-round industry-education integration mechanism. It is necessary to jointly build industrial colleges, encourage vocational undergraduates and industry leading enterprises such as Haiken Group to jointly build characteristic industrial colleges, customize talent training programs around the real needs of enterprises, and carry out order-based training. It is necessary to introduce real projects to introduce non-core businesses such as digital marketing, data cleaning, and new media operation into the campus, and can establish productive training bases or school-in-school factories in the school, so that students can complete real projects under the joint guidance of teachers and corporate mentors, and realize the integration of learning and doing. It is necessary to strive to build a digital and intelligent training platform, upgrade the training conditions in the school, introduce enterprise-level business simulation software and real business systems, and use VR and other technologies to simulate scenarios such as international business negotiations and smart warehousing sorting to make up for the shortcomings of on-site internship positions. And it is necessary to strengthen internship management to ensure that students have enough time and depth of enterprise internships, especially in modern service enterprises in key parks such as Haikou Jiangdong New Area and Yangpu Economic Development Zone, so that students can immerse themselves in the digital business environment.

4.4. Enhancing the Faculty: Forging a Digital "Dual-Qualified" Team Proficient in Business, Technology, and Pedagogy

Faculty capability is the decisive factor for the success of the reform. Implement tiered and categorized training, providing targeted digital competency enhancement programs for teachers of different ages and professional backgrounds[4]. This includes training on basic tool applications, data analysis methods, and lectures on cutting-edge industry technologies. Establish enterprise practice mobility stations, mandating that full-time teachers accumulate no less than 6 months of enterprise practice experience within every 5-year period. Encourage teachers to engage in practice with specific research topics, participate in enterprise digital transformation projects, and translate practical outcomes into teaching cases and research subjects. Proactively recruit elite professionals from the digital industry by creating positions such as industry-appointed professors and skill master studios. Flexibly introduce front-line experts like enterprise digital directors and operation executives for part-time teaching, responsible for delivering practical courses, supervising graduation projects, and co-developing teaching resources. Reform evaluation mechanisms by increasing the weight given to teachers' achievements in digital teaching reform and technical services within professional title assessment and performance evaluation systems, thereby guiding teachers to actively engage in the reform.

5. Conclusion

The tide of the digital economy era is surging, and the mission of Hainan FTP construction is pressing. For vocational undergraduate colleges in Hainan Province, reforming the new business talent cultivation model is not a multiple-choice question but an imperative concerning survival and development. Reform must break free from traditional path dependency, closely align with the needs of industrial digital upgrading and FTP openness, and focus on cultivating compound talents that combine digital-intelligence craftsmanship with business management. Through systematic measures like curriculum reconstruction, industry-education integration, faculty enhancement, and evaluation reform, a new business education

paradigm with Hainan characteristics and digital-era features should be constructed. Only in this way can a continuous supply of high-quality business technical and skilled talents-who are employable, retainable, and have development potential-be delivered for the Hainan FTP construction, achieving resonance between vocational education and regional economic and social development.

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