

# Research on innovation and practice of personnel training model for applied accounting under digitalized and intellectualized environment-A case study of Xi'an eurasian university

Yurong Hou\*, Xuxing Yang, and Wei Zhang

Accounting Department of Xi'an Eurasia University, Xi'an, Shaanxi, China

**Abstract.** The new requirements are proposed to the quality and quantity of personnel training of accounting professional under the digitalized and intellectualized environment. The existence of accounting has great dependence on market demand and the social value, thus accounting professionals should follow the talent requirements closely which include data management, data analysis, intelligent tool application and development under the intellectualization era, and further accelerate intelligent financial personnel training to a higher level of evolution. This paper takes the accounting major in Xi'an Eurasian University as the research object, which practice deep integration on digital intelligence technology and accounting professional education. Expecting to provide new ideas and typical cases for the construction of applied Accounting major.

## 1 Introduction

The era of digitalization and intellectualization refers to the era of integration and penetration of the new generation of information technologies such as big data, intelligence, mobile Internet, cloud computing, blockchain and Internet of Things [1]. Daniel (2012), an accountant from Romania, said that modern intelligent means can promote the progress of accounting. New changes must be brought to the training and career planning of accounting practitioners in the context of intelligent development. Foreign scholars study "financial intelligence" from the aspect of the revolutionary combination of digital intelligence technology development and financial activities. This concept has important practical guiding significance for the financial digital transformation of large enterprises, and provides the theoretical basis of financial intelligence for the academic community. Chen Hu (2019), president of ZTE New Cloud, proposed that the future of finance is the integration of informatization, automation, digitalization and intelligence [2]. The information technology represented by "big data, intellectualization, Mobile Internet, Cloud

---

\* Corresponding author: [hoyurong@eurasia.edu](mailto:hoyurong@eurasia.edu)

Computing, IoT (Internet of things)" is subversive to change the supply structure of factor market, accounting talents as human capital are also facing unprecedented challenges. Continuous emergence of "financial data sharing", "Internet +", "intelligent accounting" and other new forms of business have been given new connotation on accounting profession. The society's requirements on the quantity and quality of accounting talents have changed greatly [3]. As "the more technology develops, the more important accounting becomes", said by Jun Chen(2020), accelerating the training of intelligent financial talents has become an inevitable requirement of the development of The Times and an urgent need for the accounting industry to evolve to a higher level[4]. In 2021, the Ministry of Finance issued "The Outline of the 14th Five-year Plan for Accounting Reform and Development", which required "to effectively accelerate the digital transformation of accounting and auditing, in order to provide new engines and build new advantages for the development of accounting"[5]. Under the guidance of national policy and development plans, colleges and universities as the cradle of social human capital supply and upgrade, must take the initiative to cater to social change of The Times of big data and artificial intelligence, actively respond to national New humanities and social sciences building, vigorously promote information technology deeply embedded factor supply of accounting education, timely teaching reform. In order to adapt to the talent quality requirements of the digital-intelligence era, and further vigorously promote the deep integration of "digital-intelligence" financial and accounting work into economic business [6]. Timely adjust the direction of applied accounting professional talents in colleges and universities from student's recruitment, professional specialty, the talent training scheme. Putting forward new requirements on the accounting personnel's possession of the professional knowledge, skills. Combined with the quality improvement strategy of colleges and universities, promote the reform of talent cultivation model of brand new, with the high quality, strong output skills and innovative talents for the purpose. It is urgent to meet the structural demand of applied accounting talent market.

## **2 Requirements for the training of applied accounting talents of the digitalized environment**

### **2.1 Put forward new requirements for talent training objectives**

An era of digital intelligence which demand the digital transformation and upgrading of enterprises accelerated in all directions, therefore, put forward new requirements for financial talents who can dominate or influence the speed of enterprise transformation and upgrading in a greater extent. Accounting talents are changing from accounting type to analysis type and from professional type to compound type. In addition accounting talents are not only to systematically and comprehensively mastering accounting knowledge, but also need to skillfully use big data information collection, analysis technology, understand human-computer interaction, deep learning and other artificial intelligence technology and Internet of things technology. As the main body of finance and accounting personnel training, colleges and universities need to further expand the connotation and extension of knowledge objectives, ability objectives and quality objectives of talent training. Striving to meet the needs of finance and accounting personnel training under the background of digital intelligence through the guidance of new ideas, the application of new technologies and the construction of new models.

## **2.2 Put forward new propositions for the talent training system**

In the digital era, the college accounting talent training system needs to be reformed and reconstructed. On the one hand, it's need to refactor the traditional thinking of professional talents cultivating to cultivate students' innovative thinking and ability from the general knowledge, innovative consciousness, the Internet thinking and practice ability training. Eventually formed a new talent cultivation system with digital ability training as the core, other general ability training as the supplement. On the other hand, it is necessary to take social demand as the guidance, start from the actual talent demand of enterprise digital transformation to complete the talent training program, reconstruct the training mode, training methods and training requirements, and realize the transformation from professional training to generalist training. It is necessary to lay a solid foundation for the training of composite applied accounting talents through the optimization and adjustment of the curriculum system, the integration of teaching content and teaching means with the times, and the integration of training mechanism in and out of school.

## **2.3 Put forward new challenges to the construction of teaching staff**

The change of training objectives and knowledge system has posed greater challenges to teachers. Teachers should not only have knowledge of accounting, but also relevant knowledge of artificial intelligence, blockchain, cloud computing, big data and other aspects. Therefore, it is necessary to upgrade and expand the faculty, which is a system engineering. On the one hand, the existing teachers should be upgraded and reformed through the various ways. For instance, encouraging teacher to actively participate in the practice of enterprise transformation, so as to realize the effective connection between academia and the frontier of accounting practice. On the other hand, try to perfect the production-teaching-research cooperative education platform to develop multi-channel, multi-mode university-enterprise cooperation. On this basis, introducing the enterprise business, case teaching, theory teaching and practice to the seamless docking platform. And further inviting a practice session of experts to the existing faculty expansion through lectures, scene teaching way.

# **3 Challenges faced by applied accounting education in the era of digital intelligence**

## **3.1 Disjoint between supply side and demand side of accounting talents.**

The disjointed dislocation between the teaching of accounting major and the employment of students is becoming more and more thought-provoking. These new problems in the new era are ultimately result in the dislocation between the supply side and the demand side of accounting talents. For example, according to the 2016 Kunming National Accounting Annual Conference, about 27.8% of accounting personnel are engaged in the job unrelated to accounting or even unemployed, even the remaining nearly 72.8% of accounting personnel, the annual per capita income is still less than ¥90,000. However, at the other end of the scale, there are about 7,000 small and micro businesses in China that do not have access to professional accounting services. The mismatch between the demand of applied talents in accounting field and the supply of professional talents training in colleges and universities leads to the serious disjointing and dislocation of talent between output and demand.

### **3.2 The teachers can not meet the requirements of the era of digital intelligence**

At the beginning of 2020, the global outbreak of COVID-19 has brought great challenges to the course teaching in colleges and universities. The online teaching of one-semester theory courses, the synchronous implementation of practical courses in different places and the construction of MOOCs show that the application of intelligent technology in modern teaching has become a development trend and an inevitable requirement. However, in the current teaching process, it appears that teaching tasks seriously affect teachers' use of the latest software. The biggest problem facing by accounting teaching in the era of artificial intelligence is not the lack of technical support, but the ability of teachers adopting new technology. At present, college teachers still focus on traditional teaching, which does not meet the new needs of Internet teaching methods and artificial intelligence era.

### **3.3 The degree of cross-integration of professional curriculum system is not high**

The accounting professional teaching should have strong social orientation, but as the technology innovation and change in the business environment, accounting environment is changing dramatically. Such as, financial robots (RPA) replace basic financial accountants, small and micro enterprises outsource the accounting to reduce the enterprise cost, financial Shared services are normalized in the big enterprises. All the above transform are putting forward new requirements which include but not limited to the abilities about stronger data processing, deal with complex problems solving on the accounting personnel. However, the dividing criteria in traditional basic accounting, cost accounting, management accounting and other curriculum system of course is too detailed, and furthermore, too much emphasis is focus on accounting relevance, but the curriculum isolation, content repetition between courses in different semesters and other shortcomings remain unchanged. Therefore, it is urgent to reconstruct the modern course system of accounting specialty to improve the teaching quality.

## **4 The reform practice of applied accounting personnel training of Xi'an Eurasian University**

### **4.1 Building a comprehensive professional education system with general education, professional education and cross-training with moral education.**

Xi'an Eurasian university adhere the principle of holistic education to the undergraduate education, at this base, the major of accounting take the characteristic as "thick accounting professional foundation, strong IT knowledge, heavy practice" "integration based on accounting and management". The undergraduate education of accounting follow the changes in the industry development, closely connected with industry, timely integrated the new generation of information technology include but not limited the information technology base, big data and cloud computing, financial robot into the teaching process. Attach importance to the ability acquisition, quality improvement and personality perfection on the basis of broad knowledge learning. In addition, the new era of talent training requirements not just stay on solid financial professional knowledge, but should put more focus on the ability to use new technology in intelligent environment, such as, utilizing financial robots from the factory and in the sharing of business model to select the required data, break through the financial and business organizational boundaries to achieve

depth fusion between financial services and business running. Therefore, Accounting personnel training should put more emphasis on "specialty should transcend, financial should go beyond", take professional education under the background of intelligent change and digital innovation, in order to create a branch, a comprehensive interdisciplinary cross education system, cultivate the new type of financial personnel who can understand business, understand the artificial intelligence, good at data analysis, data mining.

#### **4.2 With deep integration as the core, shaping the collaborative professional curriculum system of ideological and political science, management accounting and big data.**

The core courses of traditional finance and accounting major and big data courses are adopted simultaneously to cultivate students' financial professional ability, with special emphasis on understanding and insight into the rules, processes and scenes of finance and accounting by using big data technology. To establish large data classes as course cluster, set up corresponding course group specializes in the curriculum development and construction, financial and technical depth fusion at the same time pay more attention to the application of ideological elements in each class. Let the value guidance, knowledge instruction and ability cultivation uniform. Specialized course teachers in the course group deep excavated and sorted the internal elements of ideological and political to integrate it into teaching design with consideration about specific content of each course. Based on the perspective of big data and the technical process of big data, the process thinking and tools of big data will be fully integrated and used in the main line of enterprise business data, financial data, financial reports and other non-financial information. Therefore, the traditional financial management course system will be comprehensively optimized. On the basis of the original ERP, Visual Basic, fiscal and tax integration, sharing center comprehensive training, deeply combined with SQL database, EXCEL, Power BI, Python and other advanced data processing and analysis tools for financial analysis, as an innovative practice of financial management. The innovation of course system, course content and teaching mode more focuses on the fusion of the accounting major and the technology of data from through group discussion, perspectives presentation, project activities. Meanwhile, ideological and political education is integrated into specialized course teaching process. Finally, It can not only cultivate students' professional skills, but also cultivate their noble moral sentiments. And furthermore, enable students to establish a correct outlook on life, values, promote socialist core values.

#### **4.3 To respond the call of times, putting effort on create an ecological circle which include accounting professional education, teaching and research platform and Industry-university-research cooperation platform.**

"The more technology evolves, the more important accounting becomes ", the existence of the accounting derives from the market demand and the social value, thus accounting professionals should cultivate the talent requirements of times of intellectualization which include data management, data analysis, intelligent tool application and development. In order to timely and accurately analyze the talent structure change, continue to use technology for professional services and can develop to a higher-level professional development. Rapid progress in the development of financial practice, the accounting major in Xi'an Eurasia University is specialized in scientific research and education, practice education, industry-university-research cooperation. Deeply cooperate with the group head enterprise which include but not limited with KingDee, ZTE, Inspur, Western airport. Actively promote the collaborative education practice base construction, blend the

advanced practical case of enterprises into teaching process to sustainably improve students' professional practice ability.

#### **4.4 Take cross-introduction of wisdom as a measure to build the team of innovative and collaborative finance teachers from independently trained, jointly built by disciplines and cross-integrated.**

Interdisciplinary faculty is the most important resources for the training finance professionals in the new era. Based on the professional development needs, the construction of the finance faculty must adhere to the main professional autonomy training, which requires the existing faculty to actively delve into practice and accurately grasp the trend of financial intelligence. At the same time, the faculty structure is optimized by actively introducing young finance and accounting teachers with complex knowledge backgrounds. In terms of basic and comprehensive ability cultivation, the college adheres to an active cross-intelligence approach, employing faculty members in the direction of big data and information technology as well as practice experts on a part-time basis. In addition, dividing course groups by different course contents and distributing faculty members within different course groups enables both the development of integrated courses with mainly interdisciplinary faculty members and the continuous in-depth exploration of the deep reform of traditional accounting courses, and further establishes an incentive mechanism for joint development among course groups. To build a dynamic, adaptable, flexible and efficient faculty team.

#### **4.5 Based on resource sharing to create a new teaching experience in which classroom education, MOOC teaching and mobile learning complement each other.**

Digital intelligent environment changes the way of teaching and learning. Teaching is no longer confined to the classroom, learning happens all the time and everywhere. The ubiquitous approach requires that teaching and learning activities not only be designed for the classroom, but also be extended before and after the classroom. Put more knowledgeable content through the Internet teaching platform. Create or leverage the teaching resources of the resource platform, and set out the learning list requiring students to use extracurricular time to study. The college builds platforms and environments for mobile learning and virtual learning, promotes the convergence and integration of multiple education and learning methods, and creates interactive spaces for online and offline learning. Further realize the full sharing of educational and teaching resources, lead the innovation of teaching methods under the Learning 2.0 mode, promote teaching from knowledge-based to competence-based, and create better conditions for independent learning, cross-learning, and research-based learning. Teachers, assisted by the intelligent platform and technological conditions, combine students' individual characteristics to design rich and flexible teaching links, and teaching activities continue from before to after class to realize the whole process of cultivation. Students use the Internet and diverse learning terminals to develop an active and lifelong learning mindset in conjunction with their own reality.

## **5 Conclusion**

The footsteps of the era of digital intelligence have entered all walks of life, and the development of cutting-edge information technology has made the requirements for talents

in accounting industry more and more strict. Therefore, as the cradle of training accounting personnel, the training of applied accounting talents in colleges and universities should follow the trend of the intelligent era and carry out adaptive reforms in terms of training objectives, curriculum reform, faculty construction, platform building, etc., so that students can establish the concept of long-term learning, learn IT-related knowledge and skills, and consciously train themselves into composite talents.

Foundation item: founded by Shaanxi Provincial Education Science "14th Five-Year Plan" Project "Research on the cultivation system of applied accounting professionals under the environment of digital intelligence"; founded by the key courses of Xi'an Eurasian National University in 2019 "Financial Data Processing Technology".

## References

1. Gaoliang Tian, Hu Chen, Yancong SUN, Yang Liu. Research on financial transformation under the background of "big wisdom shifting cloud" [J]. Finance and Accounting Monthly, 2019 (20)
2. Lijun Zhang. A new model of enterprise talent training in the era of digital intelligence [J]. Human Resources, 2020(14):26-31.
3. Dapeng Tang, Bolun Wang, Yichen Liu. Reconstruction of accounting education in the Era of "digital Intelligence": Supply-demand Contradiction and factor Innovation. Accounting Research (12):3.
4. Jun Chen. Intelligent Financial Talent Training and Exploration of Zhejiang University [J]. Finance and Accounting Monthly, 2021, (14):94-96.
5. "The Outline of the 14th Five-year Plan for Accounting Reform and Development"
6. Jun Zhang. Research on the cultivation mode of intelligent accounting talents in the era of "big intelligence, mobile cloud and things" [J]. Business Economics (5):3.