

RESEARCH ARTICLE

Accounting reform of higher education: A social and managerial analysis in the era of digital intelligence

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Abstract: The purpose of this paper is to discuss the accounting reform of higher education in China with a socio-managerial analysis in the digital intelligence era. It will enable students to actively adapt to the development need of the market economy. This article uses an exploratory research method and analyzes the challenges faced by Higher Education in the era of digital intelligence from the three dimensions of corporate profit model, webcast rewards, and changes in the environment. With the development of digital intelligence, new industrial formats and business models are constantly emerging. Digital transformation has brought severe challenges to accounting theory and practice. Now green finance is emerging with the concept of sustainable development. Based on this analysis, the article proposes a training framework for accounting and management talents in the era of digital intelligence.

Keywords: green finance, innovation, corporate social responsibility, accounting framework

1 Introduction

Relationship between economy and management has attained the attention of researchers and practitioners in recent years. The more the economy develops, the more important accounting becomes [1]; and for the continuous development and progress of the accounting discipline, it is necessary to effectively link accounting theory and accounting practice, use accounting theory to guide accounting practice, and use practice to promote the development of accounting theory. Accounting education should have grown in terms of training objectives. However, with the rapid development of China's economy, some scholars have put forward different views on the training of accounting talents.

It is the need of time to pay attention to the application of real cases in accounting [2], and as a recommendation, training of accounting talents should be guided by the needs of economic development [3]. The purpose of accounting talent training is to enable students to actively adapt to the development need of the market economy. Yu Yulin (2011) [4] mentioned that modern accounting teaching methods can adopt accounting creative teaching method, accounting discovery teaching method, accounting discussion teaching method, accounting empirical teaching method, accounting experiment teaching method, and accounting case teaching method *etc.* He Yurun *et al.* (2013) [5] believe that to improve the training of accounting talents, the starting point should be to obtain and improve the professional abilities and qualities of students. Zhang Yongjie *et al.* (2019) [6] pointed out that to promote the cultivation of excellent accounting talents to achieve supply-side reforms, and to accelerate the quality of the cultivation of excellent accounting talents in line with industry needs, professional competence should be the guide. The research of these scholars mainly discusses the training model of accounting talents from a macro perspective, and provides a reference direction for the training model of college talents.

However, since the beginning of the 21st century, with the rapid development of digital technologies such as internet, cloud computing, big data, and artificial intelligence, and their full integration with the national economy, the new economy [7] and drivers have developed rapidly, and digital transformation has been regarded as a source of "New Engine" of economic growth. In recent years, the Organization for Economic Cooperation and Development (OECD) has put forward the international issue of "Going Digital", clarifying the strategic positioning of digital transformation to promote economic growth and welfare [8]. The European Union, the United

States, Canada, Australia and other regions and countries have also made the digital economy as the focus of their development strategies. In China, the Party Central Committee and the State Council attach great importance to the development of the digital economy. General Secretary Xi Jinping emphasized the development of the digital economy at important meetings such as the “One Belt, One Road” International Cooperation Summit Forum, the BRICS Leaders’ Meeting, and the G20 Summit. An important statement was made by General Secretary: “The digital transformation of the world economy is the general trend, and the new industrial revolution will profoundly reshape human society.” Driven by digital technology, new industries, new formats and new business models have brought several challenges to accounting theory and demand reformation of accounting talents.

2 Accounting theory in the era of digital intelligence

Driven by digital technology, many new phenomena have emerged in the economy and society. For example, with the rapid development of information technology and the internet, data have shown explosive growth and have become an important asset. Under the background of digital transformation, corporate profit models continue to innovate, and free Internet content has become easily available. Webcasting appears as a common phenomenon. As part of people’s social life, rewards of webcasting emerge as the source of income for live broadcast platforms [9]. Corporate social responsibility has emerged as the bright source of people motivation and vice versa [10]. Digital technology is rapidly and continuously updated and iterated, and new products are constantly emerging. The rapid development of digital technology has brought about rapid expansion of the original scale of entertainment, literature and art. Hence human factor is required to be assessed in adoption of technological developments [11].

2.1 The challenge of corporate profit model innovation to accounting theory

In the context of digital transformation [12], corporate profit models continue to innovate. Many internet companies provide residents with a large number of free or low-cost services to attract users and make profits through advertising and other businesses. Take Tencent’s WeChat service as an example, it provides consumers with free services, through which to gather user traffic. Thus it brings a large number of customers to other businesses such as advertising, finance, and games. Sustainable financing is converting to green finance now. Tencent obtains huge profits through advertising and other businesses, and uses advertising fees and channel service fees to indirectly compensate the operating costs of WeChat and other businesses. The innovation of enterprise profit model brings challenges to statistical theories such as production statistics, income statistics and consumption statistics. In terms of challenges to the production statistics theory, this new type of profit model has changed the profit mechanism of directly using product sales revenue for the production and operating costs, making the productivity of free or low-cost services hidden in the innovative structure of the corporate profit model. There are production statistics that fail to fully reflect this, which leads to underestimation. It is necessary to explore the theoretical framework of production statistics for free or low-cost services provided through internet, based on which theories and methods are explored by using big data to estimate free or low-cost services.

In terms of challenges to income statistics theory, internet websites provide residents with free or very low-priced services, not only causing residents’ consumption of these services to be ignored or seriously underestimated, but the corresponding residents’ disposable income is also ignored or seriously underestimated. Corresponding statistical theories and methods are explored here by using big data to estimate the income of residents brought by free and low-cost services. In order to cope with the challenges brought by the innovation of corporate profit model to statistical theory, it is necessary to consider a virtual calculation of an output on platforms such as online search engines, video websites and social media, and the output is provided to users “for free” in the form of physical transfer; For users, it is necessary to calculate a virtual income, which is used to “consume” the free products provided by the platform.

Increasing changes in technology are changing business processes, bringing different ways to expand the market, and customers can be attracted in different ways. At the same time, scientific and technological means are analyzing data in a brand-new way and continuously improving traditional financial reporting practices, which can help financial support teams in decision-making statements from a more strategically-supported perspective.

2.2 Changes in the demographic structure and transformation of the accounting industry

China's labor force has been declining since 2012, and it is estimated that the proportion of the labor force will drop by 23% by 2050. All agencies must plan ahead for such changes. Accounting practitioners should take important responsibilities in this change and ensure that they can play a leading role in the development and automation. Resource utilization for development should be sustainable manner meeting social and environmental needs [13]. The sustainable development of the industry is also very important to practitioners. Customers will also consider their own business and the impact on the environment from a longer-term perspective. In 2015, the United Nations issued a sustainable development program, which will have an impact on all people in the world. By 2030, the world must be built in a sustainable way. In this process, the government will certainly shoulder more responsibilities, but the government alone cannot complete the sustainable development plan. It needs the cooperation of other stakeholders to finally achieve the 2030 sustainable development goal. At present, more new thinking emerges. At the same time, accounting practitioners should think about what role they should play in society. How to measure the impact of the accounting industry on the overall environment? Whether accounting can bring inclusiveness and diversity to the world? Whether the industry has done a good job of responding to technology? Whether the preparation for change can allow employees and businesses to perform their abilities in the process of continuous automation, or not? Can accounting use economics and other academic theories to prepare people for retirement enabling people for their future lives earlier? After all, the good performance of a company depends not only on financial management, but also on other governance aspects to achieve the desired results.

2.3 The challenge to accounting theory of Online Live Rewards

In 2011, webcasting platforms began to emerge in China. After nearly 9 years of development, webcasting has become a part of many people's social life. At present, the income sources of major domestic live broadcast platforms are not the same, but users reward revenue is the most concerned source of income for live broadcast platforms [6]. Regarding the nature of reward income, there are two main views in Chinese domestic academic circles: the theory of gift and the theory of service contracts. The former thinks that the reward is to decide whether to pay the reward and the amount after enjoying the service, and it is not mandatory, so it cannot be regarded as a service contract. While the latter believes that reward is a two-way and mutually beneficial behavior, that is, the recipient provides performance services or thought-inspiring services, and the recipient pays the service fee to the recipient (Tan Fengyi *et al.*, 2018).

If the revenue from live streaming is used as the income created by service production, the factor input in the live production activities will form factor rewards accordingly. The livestreaming reward income is incorporated into the primary income distribution system through the income gained by anchors, the profits gained by anchors' contract companies and broadcast platforms, the depreciation of fixed assets, and the tax gained by the government. Regarding the new business model of webcasting, the qualitative nature of revenue was unclear. Cross cultural management and understanding of corporate social responsibility [9] has helped having a look at new business social model. There are still controversies as to whether the income of the anchor is treated as labor remuneration or as the operating income of self-employed households. At the same time, it is not clear what kind of tax is applicable to the live streaming reward income by the relevant government departments. Moreover, due to the lack of information in the tax collection and management of the live streaming reward income, it is very difficult to measure the corresponding tax. The income from live streaming has brought challenges to the theory of income statistics, and the theory and methods of income statistics must be constantly innovated to adapt to the new situation. If the live broadcast reward income is taken as the income created by service production, then the reward expenditure shall be taken as the tipper's consumption of live broadcast service. As there is currently no consensus on the determination of revenue from live streaming, traditional consumption statistics based on household surveys have not yet included household tipping expenditures into the category of consumption statistics, which poses challenges to consumption statistics. Therefore, inclusion of big data usage on the live broadcast platform will benefit the tipper's consumption of this new service activity into the household consumption expenditure statistics [12, 14, 15].

3 Training plan for new financial talents in the era of digital intelligence

3.1 Determine the training concept of new financial talents

In the financial department of an enterprise, accounting activities do not create value, while activities such as planning, budgeting and forecasting, investment and financing can help enterprises create value. It is no longer enough for the financial staff of the future to have financial and accounting expertise. Only with a wide range of involvement, they can literate from the books and become the talents needed by the enterprise. Moreover, with the continuous progress of science and technology, the emergence of some new industrial technologies represented by “Internet +”, big data and cloud computing, and the emergence of “financial sharing center” and “shared accounting” have greatly reduced the manual workload. With the use of financial robots and accounting work such as confirmation and measurement, recording and reporting has been gradually replaced by artificial intelligence. Financial analysis will become the main work of financial personnel in the future, and financial workers in enterprises will face unprecedented opportunities and challenges. Therefore, future financial personnel, who want to keep up with the times, can no longer simply base on financial accounting knowledge, but need to integrate various relevant aspects of financial knowledge. They should also be quite familiar with economics, taxation, marketing, management, and law etc in order to adapt to the needs of the financial industry development and transformation in the new era.

At the same time, under the background of new economy, the boundary between the three industries is becoming more and more blurred, and the phenomenon of inter-industry integration and development is becoming more and more common. Moreover, with the prosperity of transnational cooperative trade, the accurate professional judgment and good professional control ability of financial personnel play a crucial role in the development of enterprises. What all stakeholders need is no longer the integration based on historical data, but more forward-looking and effective data extracted by financial personnel based on the situation of the enterprise itself, the market situation and the analysis of competitors. Attention should be paid to the unity of theoretical teaching and practical teaching. Therefore, financial personnel need to think using the knowledge of management accounting and the relevant knowledge of management accounting to deal with the economic business of enterprises.

3.2 Unity of theory teaching and practice teaching

The training of talents implements the new model of “trinity”, that is, focusing on the value shaping, ability training, and knowledge imparting to students. At the same time, classroom ideology and politics are introduced into the classroom, that is, the basic principles of being doing things, the requirements of socialist core values, and the ideals and responsibilities of realizing national rejuvenation are integrated into various courses. Actively promoting online education is the school’s strategic development for the future.

In the design of talent training programs, schools should combine the goals of talent cultivation of financial management major and increase the proportion of experiment and practice teaching on the premise of ensuring theoretical teaching. Schools can improve the practical teaching content from three aspects: professional cognitive education, professional skills training and employability training. First of all, schools should increase the number of hours of practical teaching of financial management. For example, the newly enrolled college students conduct professional cognitive learning and social practice through practical projects to strengthen their learning through practical training courses. Students’ professional experience can be gained through teaching practice graduation practice and graduation thesis *etc*. Secondly, the school should carry on the overall design to the practical teaching link arrangement. For example, the purpose, specific tasks, content and assessment requirements of practice teaching should be included in the teaching plan, and teachers should strengthen the supervision and guidance of the whole practice process to serve the goal of talent cultivation. Finally, the time for students to work in the enterprise as teaching practice and graduation practice should be increased so that students can really get in touch with the work of enterprise financial management, combining the learned theoretical knowledge with practice, improving students’ innovation and practical ability.

3.3 To cultivate the lifelong learning ability of accounting personnel

Things are constantly changing and evolving in green finance. Especially in recent years, many changes have taken place in China's financial policy. At the accounting level, the "New Accounting Standard" was only released in 2007 and some adjustments were made in 2017. Later several adjustments were made in 2018, the policies have undergone great changes from the income statement and balance sheet to the adjustment of accounting standards. In terms of taxation, the "business tax to value-added tax" was issued in 2016 and the personal income tax reform was taken in 2018. The State Administration of Taxation has issued 76 new policies since December 2018, and the VAT rate adjustment took place in 2019. . . Regardless of accounting level or tax level, this series of changes require financial personnel to constantly update their knowledge structure. Maybe the students just graduated and haven't gone to work, they have knowledge which is no longer applicable, so financial personnel must continue to learn, enrich their minds, update their own ideas. It's not enough to rely on blood transfusions and it should also have the function of hematopoiesis. Therefore, the cultivation of financial personnel's learning ability is far more important than imparting knowledge itself.

4 Conclusion

To cultivate learning ability, the consciousness of lifelong learning must be first established. The era of knowledge economy is also the era of information, various advanced information technologies are being increasingly used, and information technology is developing at a rapid pace. As for how to keep up with the pace of development and not be eliminated, financial personnel need to have the consciousness of lifelong learning and the ability to learn new technologies. School education should incorporate the cultivation of the learning ability of the educated people into the talent training program. In terms of teaching methods, teachers often use questioning methods to teach. Asking questions can promote students to think about problems and thus form their own unique way of thinking about problems. In terms of learning methods, from traditional book-to-face teaching to mobile classroom teaching, students are gradually developing their independent learning ability.

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