

# Analysis on the Cultivation of Application-Oriented Undergraduate Accounting Talents under the Background of Information Technology

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**Abstract:** At present, with the rapid development of technologies such as big data, artificial intelligence, mobile internet, cloud computing, the internet of things, and blockchain, it is very urgent to cultivate high-quality comprehensive accounting and accounting talents in the new era, and emerging in the context of information technology the financial education model needs to be constructed urgently. Based on the development of the accounting industry and the needs of personnel in the context of information technology, this paper investigates students' perceptions of accounting information technology, and proposes the basic ideas for the training of applied undergraduate accounting professionals based on the survey ideas.

## 1. Introduction

At present, information technology is the world's most concentrated R & D investment, most active innovation, most widely used, and most prominently driven by radiation. Information technology drives thinking, decision-making, and social development, creating great value. The explosive development of information technology has also brought about rapid changes and unprecedented challenges to the accounting industry. It has penetrated into all aspects of the work of accounting professionals, and the business transformation of accountants has become a consensus.

In the context of the rapid development of modern information technology and the informatization has become an important factor in the competition among enterprises, promoting the financial accounting reform of enterprises has become a necessary process in the process of enterprise development. Therefore, enterprises need to combine modern information technology to innovate the financial accounting system [1].

From the demand side of the accounting industry, the number of grass-roots accounting staff will decrease, while the demand for management accounting and information processing staff will increase, which means that the education sector must carry out the necessary reforms on the supply side and rebuild the accounting discipline. The knowledge system integrates a large number of new technologies and skills to adapt to the changing job market needs. The students we are training are an important driving force for transforming new technologies and new businesses in the current combination of the Internet and big data [2].

The impact of information technology on the teaching of the accounting profession is not only a change in teaching methods, but also a change in teaching concepts. The traditional role played by teachers and students in information-based classrooms has been weakened, and the autonomy of the teaching process has been diminished. , Interactivity and individuality are more obvious [3].

Accounting informationization is different from accounting computerization. It makes full use of the network to realize the real-time and integration of information, serves information users, and improves the efficiency of decision-making. Cultivate society through the accounting education process “

“Accounting + informatization” composite talents are the development direction of future accounting education [4].

In order to understand the students' knowledge of informatization, a survey was conducted in 2019 for students majoring in accounting in 2018. A total of 363 questionnaires were distributed in this survey, and 342 valid questionnaires were recovered. The survey targets second-year students majoring in accounting at Dianchi College of Accounting, Yunnan University. The sex ratio

between men and women is 1: 2.75.

## **2. Accounting Industry in the Wave of Informatization**

Under the influence of the current information technology represented by artificial intelligence, big data, cloud computing, and mobile Internet, the accounting industry is undergoing unprecedented changes: financial sharing has become the most popular management model, and financial cloud has become an enterprise-based operating platform. Data has become one of the most important assets, smartphones have become the most common operating terminal, cockpit management has become an important decision-making aid, voucher processing has begun to be automated and intelligent, and information security has become a common concern for accountants.

Under the background of information technology, the employment standards of accounting firms have also changed.

On October 15, 2019, PricewaterhouseCoopers announced that the company will launch a key project called “New world. New skills”. This project focuses on “New World, New Skills”. Improving the digital skills of employees is the core of this event. It is reported that PricewaterhouseCoopers will invest US \$ 3 billion (approximately RMB21.29 billion) before and after to use it for staff training, technology development, and technology sharing. In China alone, it will cover 17,000 employees and help them achieve systematic digital skills upgrading. Among employees, digital skills training is mostly welcome. Because they also feel that with the development of technology and the popularization of automation, great changes have taken place in the field of accounting. Data show that 53% of employees believe that the task at hand will be replaced by the popularity of automation in the next ten years. 77% are eager to learn new skills and participate in systematic training to ensure future employment opportunities. Digital skills must be the trend of the future. Therefore, this “New world. New skills” not only protects the future market for PwC at the company level, but also gives employees a chance to seek future development at the individual level.

In 2017, EY took the lead in launching the new EY Badges program, which implements digital certification of new skills at the company level (new skills here include data visualization, robotic process automation, and artificial intelligence). As long as employees complete courses in related fields, they can get EY Badges certification after passing the audit. The certification levels are divided into four levels: copper, silver, gold and platinum.

In September 2019, KPMG's future-oriented auditors fully promoted the “KPMG Smart Audit” project. KPMG believes that the future industrial landscape of accounting, finance and auditing will be affected by digital transformation. So in 2019, KPMG reached a consensus on cooperation with Nankai University, and plans to jointly launch a big data analysis and auditing course from 2020. The company also made it clear that talents in accounting and big data analysis will be the focus of their future search and training. KPMG China issued a statement in September, not only that they want their employees to be proficient in data analysis, but also that they have critical logical thinking skills.

In its “Necessary Skills for Human Work Survival in the Age of Machines”, Deloitte mentioned that as companies gradually adjust their business to adapt to an increasingly globalized and digital world, those who can use technologies such as robotics, big data and artificial intelligence to Organizations that automate routine and unconventional tasks can increase efficiency and effectiveness, gain a competitive advantage, and make smarter, faster decisions. For organizations whose employees have the common skills and abilities to work with machines, this also has a positive impact, their wisdom and capabilities are increasing so they can do more and more than previous generations Be positive. Large and small companies that cannot adapt to this new era of automation are likely to struggle. Although their workforce may have a certain size, layout, or deep technical skills, they cannot compete with machines or organizations with highly adaptive employees.

### **3. Top Ten Information Technologies Affecting Chinese Accounting Staff**

On July 1, 2019, the results of the selection of the top ten information technologies affecting Chinese accounting practitioners in 2019 were released at the “Information Technology and Financial Future” summit forum hosted by the Shanghai National Accounting Institute. These ten information technologies are in turn : Financial Cloud, Electronic Invoice, Mobile Payment, Data Mining, Digital Signature, Electronic Archive, Online Audit, Blockchain Invoice, Mobile Internet and Financial Expert System.

#### **Top Ten Information Technology Processes That Affect Chinese Accountants**

In this survey, the organizer selected 99 experts with certain accomplishments, qualifications or influence from the fields of China's accounting informatization through extensive social mobilization, expert self-recommendation, expert recommendation, industry association recommendation and other channels. An independent list of information technology candidates nominated by experts to influence Chinese accountants was combed by the directors of the expert committee to form 30 candidate technologies. Shanghai National Accounting Institute's Accounting Information Survey Center designs a questionnaire based on candidate technologies, accepts public votes through online communication channels, and sets up independent experts to vote. The sample size of this survey hit a record high. After screening, according to the results of 2,845 public votes and 99 expert votes, “10 information technologies that currently affect accounting personnel” are formed. These 10 technologies and support rates are: Finance Cloud (72.1%); Electronic Invoice (69.5%); Mobile Payment (50.7%); Data Mining (46.9%); Digital Signature (44.5%); Electronic Archives (43.1% ) ; Online auditing (41.4%); Blockchain invoices (41.1%); Mobile Internet (39.6%); Financial expert system (37.7%).

The survey found that the top four students' understanding of the ten information technologies were mobile payment, electronic invoice, mobile internet and electronic archives. More than 50% of the students choose these four items, especially mobile payment, and more than 90% of the students are more familiar with it.

It can be seen that, for the aboriginal generation of the Internet, the overall awareness of information technology is relatively high, especially for information technology that is closely related to life. However, only 4.97% and 5.56% of students know about more specialized information technologies such as data mining and financial expert systems.

This means that in the future course setting and the design of specific course content, it is necessary to embed more cutting-edge knowledge of accounting information technology, and to provide students with a basic understanding of the use of major technologies through practical training courses.

### **4. Students' Views on Artificial Intelligence**

Big data, artificial intelligence, and machine learning are regarded as the core competitiveness of the future development of countries and enterprises. They are widely used in scenarios such as intelligent recommendation, human-machine dialogue, and unmanned operation. They rewrite our lives and work in all directions, and the results are amazing.

But in the field of finance, which is almost a process that co-exists with human civilization, it has been used to record digitally all the evolution of individuals, families, society and human beings. Sofamiya's tablet is on the way to the 21st century when technology broke out. Although the contents of financial records may have changed dramatically and the workload has increased exponentially, the efficiency of financial processing has always been unsatisfactory.

Regardless of whether it is a leading global Internet company or an industrial giant in the real economy, whether it is engaged in a high-tech R & D team, or a population-intensive service platform, most of the financial processing follows traditional manual records and manual comparisons. Right, manual verification. Some advanced companies may have started digital transformation, but the entire market is still at a stage of financial system information fragmentation and worrying efficiency.

It is always the direction of exploration and hard work to use new technologies to improve the efficiency of financial processing and help financial staff to be freed from tedious human labor. The improvement of efficiency depends largely on the original degree of financial automation of the enterprise.

Many people pay special attention to the impact of artificial intelligence on accounting because its development will have a direct impact on the survival of accountants. In fact, although artificial intelligence has made significant progress in the fields of human-machine gaming, face recognition, industrial robots, and autonomous driving, in the field of accounting, there have not been many breakthrough applications in these years. Until 2016, organizations such as Deloitte and PwC introduced RPA technology to the accounting field and gave it a very attractive name—understanding financial robots—and the accounting industry only found a breakthrough in rapid application.

In essence, RPA technology is a technology that has been in existence for more than two decades. It does not have many intelligent components. It only uses automated procedures to replicate human actions, helping humans to automatically complete highly repetitive, clear rules, and large batches. And work across systems. However, since the introduction of RPA technology in the financial field, in more than three years, its application in accounting-related fields has rapidly expanded to account processing, invoice processing, bank reconciliation, expense review, statement processing, assets In dozens of scenarios such as management and tax declaration, some of the basic work of accounting personnel has been replaced.

Rapid development and remarkable results have made RPA a hot topic of concern for the majority of accountants. This technology has been ranked 11th in the information technology rankings affecting Chinese accountants for two consecutive years in 2018 and 2019, thus becoming One of the fastest growing technologies in recent years.

According to the survey, more than half of the students believe that artificial intelligence in the financial field will partially replace the work of traditional financial staff in the future, and a new working model of man-machine cooperation will inevitably appear in the financial field in the future.

## **5. Survey of Students' Digital Skills**

Vodafone Institute published the results of a global study in 2019, which found that employees who believe they do not have the digital skills needed for their future jobs are prevalent globally. As one of the first studies of global technology acceptance in a digital context, the study surveyed 9,000 people in nine countries. Key findings include: Globally, 85% of respondents said they need digital skills for their jobs, 56% said they need to expand and upgrade their skills, and only 29% said their skills are adequate. 78% of Chinese respondents consider it necessary to expand their digital skills, compared with 42% in the United States, 42% in the United Kingdom, and 43% in Germany. 83% of Indian respondents and 76% of Chinese respondents receive digital training for 5 hours or more per week, compared with less than 50% in Western Europe. In recent years, individuals in China and India have directly benefited from the rapid growth of digitalization.

“The digital world is rapidly changing the world of work, and the results of this study show that digital skills are now essential for every job. However, the expansion of digital skills must follow To the ever-changing world of technology, which requires major changes in the way we teach digital skills in schools, universities and the workplace. “

Digital skills encompass everything from artificial intelligence to big data. To catch up with the times and not be eliminated, we need the joint efforts of society, schools and students. For the fresh graduates, by querying the qualifications of the company's primary financial positions, it is known that at this stage for each financial accountant, especially the primary financial position, they need to master the Office software, especially the underlying tool-EXCEL. In addition, financial staff need to be proficient in common financial software.

According to the survey, 86.26% of the students in the second grade have not applied for or passed the computer level examination, and their general computer skills are insufficient.

The survey found that most students chose basic mastery, and only 25.73% and 0.58% chose

more familiar and proficient students. It is further learned through interviews that students are more eager to understand and master the data analysis functions and function functions of EXCEL. Because it is necessary to consider adding relevant theoretical and practical courses in the subsequent curriculum.

The survey found that the vast majority of students did not have a good grasp of common financial software in the second grade. This is due to the fact that theoretical courses are usually offered in lower grades, and software operation courses generally start from the third grade. On the other hand, it also shows that students do not have the awareness and habits of autonomous and active learning, and it is difficult for society to provide adequate training opportunity. This means that on the one hand, teachers should guide students to cultivate their enthusiasm and habits for lifelong learning and autonomous learning, and on the other hand, they need to consider adjusting the existing order of courses in the curriculum.

## **6. Survey of Students' Attitudes Towards the Future**

From the beginning of the invention of artificial intelligence and financial robots, some people have always worried that if machines can really do things that humans have always wanted to do but are unable to complete their own conditions, then do financial personnel still have meaning? When financial automation is fully popularized, when machines can not only do human work, but even better than humans, as financial people, what is their value?

From the beginning of the invention of artificial intelligence and financial robots, some people have always worried that if machines can really do things that humans have always wanted to do but are unable to complete their own conditions, then do financial personnel still have meaning? When financial automation is fully popularized, when machines can not only do human work, but even better than humans, as financial people, what is their value? But looking at the bigger scene, no one is born to be willing to do simple and repetitive tasks, and the future cannot be seen day after day. Machines never do jobs that replace humans. They replace only highly repetitive, structured, and predictable jobs. For those who really love and think, machines will help them to get rid of tedious daily affairs, jump out line by line of data, and see wider possibilities.

Teachers should guide students to understand the positive impact of information technology on accounting work, and encourage students to master more general skills to love and embrace the future of man-machine cooperation.

## **7. Conclusion**

The development of information technology is prompting profound changes in the accounting industry, and is causing a revolutionary change in accounting personnel from "Mr. Account House" to "Military Staff Staff". With the rapid development of information technology, the basic accounting work and business processing will gradually be replaced by information systems or artificial intelligence programs; after a lot of energy is released, accountants will turn to the mining and utilization of accounting data and to financial decision-making. Supported positions. The rapid development of emerging technologies such as cloud computing, big data, and mobile Internet has led to a trend of diversified accounting development. Colleges and universities need to re-evaluate the existing accounting education system to meet the social needs of accounting personnel in the new situation. Career Expectations [5]. Based on the questionnaire survey, educators can understand the students' knowledge of information technology, and serve the design of future application-oriented accounting talent training framework.

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