Application of Smart Finance and Taxation Integration Based on Big Data in Accounting Teaching

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Abstract. The big data and cloud computing technology makes the integration of finance and taxation possible. Through the application of financial robots and tax robots, the intelligent financial and taxation integration platform can quickly complete financial and tax processing, greatly improving work efficiency. The students exported under the traditional teaching mode focus on basic knowledge, which is not enough for enterprises. The integration of smart finance and taxation can enhance students' practical experience and improve the quality of accounting teaching.

Keywords: Big data · taxation · smart finance

1 Introduction

The big data and cloud computing technology have a great impact on accounting teaching. In 2019, the Ministry of Education proposed the "1+X" of smart finance and taxation in the "National Vocational Education Reform Implementation Plan", which puts forward new requirements for the accounting teaching. Smart finance and taxation is based on big data. It serves the future reform and innovation needs of the accounting profession. With the typical characteristics of intelligent, shared, and professional accounting processes, the accounting work is recorded by intelligence. An intelligent finance and tax sharing and service platform could integrate business accounting and taxation [1]. At present, Chinese enterprises can implement online tax declaration through the tax collection and management service platform and the electronic tax bureau, and paperless electronic accounting can be carried out through the ERP system. However, the accounting and taxation of enterprises are still two independent systems. The integration of smart finance and taxation can realize the seamless connection between the accounting system and the tax management system, and greatly improve the efficiency of corporate accounting processing. Technological progress has spurred the reform of accounting, big data has revolutionized the working mode of corporate accounting, and smart finance and taxation is an inevitable trend in accounting teaching (Table 1).

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Table 1. Four changes in accounting triggered by technological progress [author's drawing]

The first change	In 1494, Luca Pacioli discussed the double-entry bookkeeping method in "Summary of Arithmetic, Geometry, Ratio and Proportion", which opened the prelude to modern accounting.
The second change	The birth of the computer in 1946 triggered the computerization of accounting, and achieved a huge leap in computing and storage capabilities.
The third change	With the emergence of the Internet, accounting sharing has been realized through process reengineering and ERP information system reengineering.
The fourth change	Big data has revolutionized the work model of accounting, and accounting work will become more automated, digitized and intelligent.

2 The Situation

New changes have taken place in the accounting teaching in the era of big data. The intensity of risk control of the tax bureau is unprecedented. The implementation of a series of measures such as Golden Tax Phase IV, private bank account transfer supervision, tax real-name certification, and tax audit reform has put the business capabilities of accountants facing challenges. Artificial intelligence and accounting are continuously integrated; accounting professions have many repetitive operations, and artificial intelligence can complete designated operations in batches, which greatly improves accounting efficiency. The accounting robot "Xiao Qin Ren" of Deloitte Accounting Firm can complete a few hours of manual work within a few minutes. Artificial intelligence can quickly complete basic accounting work, and basic accounting may be completely replaced in the near future. Accounting has been a popular profession for many years. Basic accounting personnel have basically reached saturation in the society. Accounting has become a "yellow card profession". Accounting teaching can no longer be confined to accounting, and is subject to accounting robots. It should pay more attention to giving full play to subjective analysis capabilities, interpreting the information implicit in data, and serving corporate decision-making. Big data puts forward new requirements for accounting positions, and the past cashier and accounting positions will gradually be linked to big data, resulting in new positions. Big data empowers the field of finance and taxation, and the accounting profession should follow the trend and carry out educational reforms (Table 2).

Table 2. The function of smart finance and taxation integration [author's drawing]

Smart Invoice Robot	The invoicing robot is connected with the ERP system, automatic invoicing, automatic invoicing, automatic branching, automatic sealing, and fully automatic high-speed processing of invoicing business. Invoice processing time is reduced to one tenth of the original manual time.
Smart billing	Automatically identify VAT invoices, train tickets, air tickets, and taxi tickets, and automatically generate accounting and reimbursement forms; one-click reimbursement, and intelligent fee control.
Smart Tax Robot	One-click generation of tax declaration forms, automatic verification of various declaration data, and fast and accurate electronic declaration. Automatic filing, automatic management, easy tax filing.

3 The Implementation

This paper uses the smart finance and taxation service platform to virtually simulate the business environment of the enterprise to realize the integration of intelligent finance and taxation. The specific process is: real-time collection of incoming and outgoing invoices in business links, three steps to complete the automatic voucher preparation of sales, purchases, and expenses; complete automatic accounting of profit and loss carry-forward and depreciation, and provide batch operations based on review, printing, and checkout The function of VAT and corporate income tax declaration is connected to accounting software, automatically extracts data, and quickly completes the submission of accounting statements. Each tax type is submitted to the system for automatic tax declaration by appointment, and the system allows personal or corporate accountants to quickly achieve "contactless" office [2]. The integrated platform of smart finance and taxation automatically recognizes the invoice information through OCR image recognition software, and performs voucher processing based on the information set in the system. The intelligent accounting platform supports multi-organization, multi-dimensional accounting and accounting. Through the transfer system, the credentials of corporate transactions are fully maintained and classified according to the direction of the accounts; the intelligent accounting platform can be directly connected with the bank to support the real-time import of bank statements. The integrated system of smart finance and taxation can use big data technology to retain the business trajectory of the enterprise, and separately list suppliers, customers, taxation, employees and other stakeholders. The integration of smart finance and taxation can realize the interconnection and intercommunication of mobile approval and mobile phones, computers and other ports, ensure efficient data transmission, and realize the intelligent processing of various tasks between the government and enterprises [3]. Intelligent taxation is carried out through the integration of smart finance and taxation, and the processes from declaration data and report generation to declaration results can be completed automatically. Since the system focuses on training students' practical skills, while the system provides automatically generated results, students can gradually practice the result generation process manually (Fig. 1).

The smart finance and taxation service platform can use big data technology to visualize enterprise information. The system can form information sharing during the data

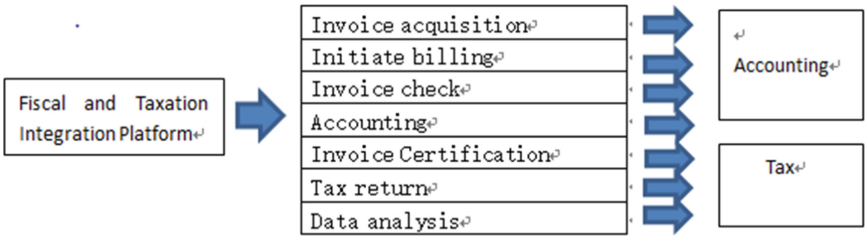

Fig. 1. The Implementation of the Finance and Taxation Integration Platform [author's drawing]

collection process. Use big data technology to analyze the results and quickly improve the efficiency of enterprise information processing. The key tool for visualization is the slicer. If the slicer selects annual variables, relevant information can be displayed and compared by year. If the slicer selects regional variables, relevant information can be displayed and compared by region. The information display form can be inserted into the line chart, pie chart, histogram and other icons on the basis of the data list to display corporate information in multiple dimensions. Enterprise information shows the status quo of the enterprise through horizontal comparison and vertical comparison [4]. Horizontal comparison refers to comparing enterprise data with industry data. Vertical comparison refers to the comparison between the data of the current year and the previous year. Visual processing focuses on analyzing the four major capabilities of the company (profitability, solvency, operating capability and development capability), income, three major expenses (sales expenses, management expenses and accounting expenses), DuPont analysis, cost-effectiveness analysis and corporate tax Negative volatility analysis. Comparing corporate data with industry data in the form of a line chart can quickly determine the status of the company in the industry. Comparing the current data of the company with the previous data can quickly get the current status of the company's development.

As the intensity of risk management by the tax bureau continues to increase, the professional ability of corporate accounting is facing challenges. Enterprises can conduct tax self-inspection through the integrated system of smart finance and taxation to reduce their tax risks. The integration of smart finance and taxation can realize the receipt and payment of electronic invoices and tax risk management, and complete the tax burden calculation of corporate value-added tax, consumption tax, corporate income tax and other taxes with one click. Big data technology can form the industry tax burden level, which can be set as the minimum tax burden warning line for enterprises [5]. If the corporate tax burden is below the warning line, attention should be paid to the reasons for the low tax burden of the enterprise, and the relevant tax-related operations of the enterprise should be checked for correctness to avoid the risk of the tax bureau's investigation. If the tax burden of a company is too high, it is not conducive to the future business development of the company, so an internal control line for the highest tax burden of the company must be set. Pay attention to the dynamic tax burden information of enterprises, resolve abnormal tax burdens in a timely manner, and reduce corporate tax risks.

4 Conclusions

The development of big data and cloud computing technology has put forward higher requirements for accounting teaching. The integration of smart finance and taxation is based on traditional accounting teaching, combined with big data analysis technology, and further cultivates students' ability to apply smart software and accounting analysis capabilities. Through the operating software, students can experience the convenience of high-end technical accounting processing, and can also practice step by step to consolidate relevant knowledge points. Big data analysis technology can conveniently process and display corporate information, which greatly reduces the time for students to process information, and helps students save time to learn more knowledge. The integration of smart finance and taxation uses real enterprise data, which is closer to the reality of the enterprise, and helps students familiarize themselves with industry information. The integration of smart finance and taxation is dedicated to cultivating accounting talents with the ability of "accounting, knowing business, knowing tools, and thinking well" to be competent for accounting positions.

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