



Design of A Win-Win Big Data Financial Management Platform For Small and Medium-Sized Enterprises

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ABSTRACT

With the development of 5g technology, the network transmission speed and stability have been greatly improved, ensuring the arrival of the big data era. This paper is a win-win platform model to solve the financial development dilemma of small and medium-sized enterprises by using big data technology to train accounting students according to the training situation of Chinese accounting majors and the development dilemma of small and medium-sized enterprises.

Keywords: *Data Age Financial Sharing Center, Training of Accounting Students*

I. INTRODUCTION

At present, data has become an important factor in production. The Ministry of industry and information technology of China issued the big data industry development plan for the 14th five year plan (hereinafter referred to as the plan). The plan specifies that by 2025, the estimated scale of the big data industry will exceed 3trillion yuan, the annual compound growth rate will be maintained at about 25%, and a modern big data industry system with strong innovation, high added value and self-control will be basically formed.

The big data industry is a strategic emerging industry focusing on data generation, collection, storage, processing, analysis and service. It is a key support for activating the potential of data elements and an important engine for accelerating the quality, efficiency and power changes of economic and social development.

Xie Shaofeng, director of the information technology development department of the Ministry of industry and information technology, introduced that the big data industry includes data resource construction, big data software and hardware product development, sales and leasing activities, and related information technology services. Xie Shaofeng said that during the "13th five year plan" period, China's big data industry started rapidly. It is estimated that the average annual compound growth rate of the size of the big data industry exceeded 30% and exceeded 1trillion yuan in 2020. The industrial development achieved remarkable results and gradually became a dominant industry supporting China's economic and social development. The big data industrial policy system has been gradually improved, the industrial foundation has been increasingly consolidated, the industrial chain has initially taken shape, and the ecological system has been continuously optimized.

At the same time, China's big data industry still has some constraints. Xieshaofeng said that at present, the whole society has uneven understanding of big data. A considerable proportion of enterprises, departments and personnel lack big data thinking of "speaking with data, making decisions with data, managing with data and innovating with data", which makes it difficult to fully release the value of data. The development of big data industry is also faced with outstanding talent shortage. The shortage of big data technology talents and the scarcity of compound talents seriously restrict the process of industrial development.

Big data also plays an important role in the accounting industry, as follows:

- (1) Business decision making: with the introduction of automation in the accounting industry, accountants have separated from repetitive accounting tasks and played the role of business consulting. They are responsible for creating financing plans for their clients and providing valuable insights. Accounting can use big data to help enterprises make wise financial decisions based on relevant data sets, and can also create and form long-term financial strategies;
- (2) Audit: big data combined with data analysis is changing the audit process. The audit process is gradually changing from sample based testing to data-driven and population-based auditing, including all key areas of the enterprise. Big data provides auditors with real structured data;

- (3) Risk management: the success of accounting firms depends on the identification and correction of financial risks. With the help of big data and predictive analysis, Certified Public Accountants (CPA) can predict future risks and advise customers to take necessary measures. Through the processing of big data, accountants can also identify potential fraud. This process does not need human intervention, nor does it need to use algorithms on a large number of data sets;
- (4) Performance evaluation: enterprise performance depends on a variety of parameters, such as employees, core processes and budget management. With the help of big data with advanced analytical capabilities, enterprise performance can be tracked by determining new performance indicators (KPIs). In addition, a large number of data sets also help to identify the market trend and maintain the leading position in the competition. The combination of big data and advanced analysis helps to identify and analyze customer models, so as to improve customer experience.

According to the report of the voice of economy of China Central Radio and television, "world finance and economics", the summit forum of "information technology drives industry financial reform" was held in Shanghai on June 6, and the list of the top ten information technologies that will affect Chinese accountants in 2021 was released. According to the industry view, driven by digitalization, the boundary between finance and business may become more and more blurred, and accountants are facing a role transformation. The top ten information technologies that will affect Chinese accountants in 2021 include: financial cloud, electronic invoice, accounting big data analysis and processing technology, electronic accounting archives, robot process automation (RPA), new generation ERP, mobile payment, data middle office, data mining, and intelligent process automation (IPA)

II. RESEARCH METHODS

This paper adopts the cross research method and functional analysis method to write the report. In the context of big data, the financial collaborative consulting platform for small and medium-sized enterprises adopts an innovative function implementation tool that combines the current Internet cloud technology with professional knowledge related to accounting and financial management. At the same time, according to the Research Report at the beginning of the tool design, we understand the needs of school accounting training students, the needs of financial management of small and medium-sized enterprises, and the relevant requirements of China's vocational education, and analyze and design the functions of the software tool. The ultimate goal is to create a multi win financial sharing management platform.

III. DISCUSSION

3.1 Technical Means And Principles Of The Project

Integration of industry and Finance - in the data age, the small and medium-sized enterprise financial collaborative consulting platform software adopts b/c product architecture, uwebsocket code, background server and front end (PC, app and applet). The authority distribution is adopted, and users and colleges take their own needs. The project has the following main modules (functions):

- (1) Free agent account for small and medium-sized enterprises (bill upload): small and medium-sized enterprises only need one employee to upload the bills that need to be bookkept by agents to the system;
- (2) Real account of school training end: it can enable teachers to obtain data that enterprises really need to process without leaving school; It allows students to carry out real account training in the campus computer room, and its processing needs to follow the national development direction according to the latest national accounting policies and tax policies; It can promote the professional promotion of teachers. Through this way of school enterprise cooperation, teachers can review and issue audit reports when they pass the examination of certified public accountants;
- (3) There are order grabbing ports and service ports in the systems of financial companies and schools; The enterprise can choose the school that accounts for it, and the school can also choose the company that wants to account for it; Both parties can rate and evaluate each other in the system. The system will also rank customers based on the real scores of the school and the enterprise; When the enterprise wants to entrust bookkeeping and the school wants to act as an agent for bookkeeping, both parties need to provide a clear quotation and the platform will provide qualification review.

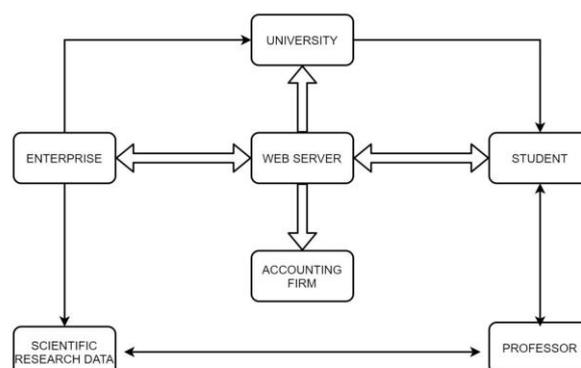


Figure 1: Working Principle And Process Of The Platform

Specific operation process of the system:

① The enterprise uploads the corresponding financial work to the system; ② After receiving the accounting task, the school will assign it to the students majoring in accounting to carry out financial processing; ③ After the completion of the students, the teachers of the school will check them first, and then the audit office will recheck them again; ④ Only after there is no problem can the completed financial work be returned to the enterprise.

3.2 The Project Mainly Solves The Following Problems

3.2.1 dilemma at vocational school level

(1) Difficulties in training students majoring in accounting in Vocational Colleges, By 2020, there were nearly 1076000 students majoring in accounting (big data and accounting, big data and financial management) in Chinese vocational colleges. In the age of big data, how to enable students to master modern management accounting skills from traditional bookkeeping is a common problem faced by each major.

(2) The cultivation of students majoring in finance and accounting with the integration of industry and education is only superficial. Through the previous research, today, with the integration of industry and education between schools and enterprises, although many vocational colleges have made various efforts, most of the school enterprise cooperation in finance and accounting is education companies, and there is no real accounting firm to build an industry education integration college with the school, which does not play a substantive role in student employment.

(3) Due to the impact of the epidemic, the economic growth is slow, and the accounting profession will usher in the most difficult employment season in history. From the perspective of work efficiency, employers prefer employees who take up their posts upon graduation. Unwilling to accept interns for training. Cross post practice has become the norm. Such as bank risk control post, Internet marketing post, etc.

(4) Financial distress of small and medium-sized enterprises

① Financial office products based on big data are only used in large and state-owned enterprises, and small and medium-sized enterprises are still in the industry blank

For enterprises, the use of big data is conducive to their better financial work and financial data analysis. However, its relatively high purchase use fee makes many small and medium-sized enterprises backward. They will choose to put more working capital in the business of the enterprise rather than update the financial office system. This makes large-scale enterprises and state-owned enterprises expand their business scope based on the convenience of big data, and expand their own enterprise scale. However, small and medium-sized enterprises can only focus on their own business based on their own capital flow restrictions, and have no time to consider updating financial software, thus widening the gap with them.

In addition, in order to further develop financial office products based on big data, we need to rely on the main force of Chinese Enterprises: small and medium-sized enterprises, which occupy 98.5% of the market year-on-year. At present, small and medium-sized enterprises have not been able to apply it to their company's office system, which greatly limits the database content of the product and creates data gaps, making it impossible to truly call it a series of big data products.

② Small and medium-sized enterprises have limited funds, and the software service fee is high, which is difficult for enterprises to bear

For small and medium-sized enterprises, their funds are mainly used in their own business, and it is very difficult to maintain normal operation under the impact of the epidemic. It is difficult for them to spend another 200000 to 300000 software service fees every year.

③ Limited financial risk awareness of small and medium-sized enterprises

At present, there are a large number of agent accounting software in the market, but their prices and quality vary greatly. Due to the limited cognition of enterprise operators on financial software, it is difficult for them to select suitable and high-quality software, which will lead to a high risk of enterprise financial data disclosure.

For small and medium-sized enterprises, their own financial operating expenses are high, which makes them choose to outsource their financial work. At this time, the agent bookkeeping software came into being. However, the decision-makers of the enterprise are not very proficient in this aspect. When they select the entrusting company, they can only check the qualifications of the relevant bookkeeping companies through enterprise inspection, but they are not able to select and screen the real business capabilities of the bookkeeping companies. And because the bookkeeping agency can only provide them with basic businesses such as voucher making, tax declaration and basic accounting statements, when the enterprise is faced with major economic activities such as financing, the enterprise operator cannot count on its bookkeeping agency to provide relevant help.

3.3. Operation Mode

3.3.1. Expected Development Of This Work In The Next Three Years

In the next three years, we will be in the early stage of the market and continue to increase the number of basic users. Customers can only choose basic business services. The price in this regard is relatively favorable, and there is a two-year free trial period. If customers have other personalized customization needs, we will charge according to the specific situation. In terms of business scope, it was first publicized and used in the third and fourth tier cities, and gradually expanded to the first and second tier cities after continuous adjustment, modification and upgrading.

3.3.2 Project Operation Objectives

In view of the various conditions existing in entrepreneurship, if we want to occupy a certain market share in the field of financial practical operation system, we should build our own product brand and aim to solve the problems of customers' equipment as much as possible. To build our own brand. We will plan three stages for landing.

Early stage: through cooperation with enterprises, it will occupy a certain market share in the school's resident area, and in this process, it will continue to improve our products, enhance product promotion, increase our business volume, enhance our industry competitiveness, strive for greater market space and more partners. Stand firm and build a brand.

Medium term: on the basis of the early stage, we should expand our scale, expand our business, and promote our brand to a wider area, so as to strive for greater market share. We consider establishing cooperative sales outlets, including schools and enterprises, to cooperate in sales and promotion, and slowly establish the overall image of our company. Later stage: when the first two are basically completed and the actual situation is basically mature, and the customer is basically stable. We will consider setting up a company. In addition to this product, we will continue to promote the product with the purpose of integrating industry and finance, and use our market share to develop and sell related products. We will also consider setting up branches to carry out R & D and promotion in different cities.

IV. CONCLUSION

Integration of industry and Finance - small and medium-sized enterprise financial collaborative consulting platform software in the data age is a real-time dynamic school enterprise real account training platform based on the relevant requirements of the Vocational Education Law of the people's Republic of China just promulgated in May 2022, relying on big data technology, using server b/c architecture, relying on Huawei cloud technology platform (Alibaba cloud), using java program code at the back end, and using Vue framework protocol technology at the front end.

Functions that the project can achieve: 1 Support the construction of Finance and economics major in Colleges and universities, provide students with real account training on campus, complete post practice without leaving the school, and build a practical training platform for teachers to enter the enterprise; 2. provide free agency bookkeeping services for small and medium-sized enterprises and build an information resource integration platform; 3. provide customized Internet financial services to realize the final integration platform for training, training and employment of accounting students.

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