

Ways to Improve the Quality of Accounting in Universities in the Era of Digital Economy

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Keywords: Digital Economy; University Accounting; Accounting Quality; Influencing Factors; Lifting Path

Abstract: With the rapid development of digital economy, accounting work in universities is facing new challenges and opportunities. Focusing on the background of the digital economy era, this article discusses the related issues of improving the quality of accounting in universities. By analyzing the factors affecting the quality of accounting in universities, such as system, technology, personnel and management, it is found that there are problems such as untimely system update, insufficient technology application, lack of personnel ability and backward management mode. Based on the theories of accounting, digital transformation, risk management and human resource management, this article puts forward some promotion paths, such as optimizing accounting process, strengthening technology application, building prevention and control system and improving personnel quality. The research shows that multi-dimensional collaborative promotion is helpful to solve the existing problems, significantly improve the quality of accounting in universities, and provide strong support for the scientific and efficient development of financial management in universities in the digital economy era.

1. Introduction

In today's era, the digital economy has become a key driving force for global economic development. With the rapid development and wide application of digital technologies such as big data, artificial intelligence and blockchain, all fields of society are undergoing profound changes, and accounting work in universities is no exception [1-2]. As an important base for cultivating high-quality talents and carrying out scientific research and innovation, the quality of accounting in universities is related to the effectiveness and transparency of their own financial management [3]. This also plays a vital role in the rational allocation of university resources, scientific strategic decision-making and sustainable development [4].

Under the impact of the wave of digital economy, the traditional accounting model of universities faces many challenges and opportunities [5]. On the one hand, digital technology has brought new tools and methods to college accounting, which is helpful to improve accounting efficiency, improve data accuracy and realize real-time information sharing [6]. On the other hand, the application of new technology has also caused a series of problems, such as data security and personnel ability adaptation, which put forward higher requirements for the quality of accounting in universities [7]. Therefore, it is of great practical significance to study the ways to improve the quality of accounting in universities in the era of digital economy.

At present, many scholars have studied the influence of digital economy on accounting field, but the in-depth discussion on this specific scene of accounting in universities is still insufficient [8]. Especially in how to systematically improve the quality of accounting in universities, and coordinate the research of system, technology, personnel and management, there is still much room for expansion. The purpose of this study is to explore a set of effective ways to improve accounting quality by analyzing the characteristics and influencing factors of accounting in universities in the digital economy era.

2. Digital economy era accounting in universities

The era of digital economy is characterized by digitalization, networking and intelligence, and data has become a key factor of production. In this context, accounting in universities has also been given new connotations and requirements. Accounting in universities mainly records, calculates and reports the fund movements involved in various economic activities such as teaching, scientific research and management in universities continuously, systematically and comprehensively. Compared with enterprise accounting, university accounting has the characteristics of non-profit and diversified sources of funds.

The era of digital economy has brought many opportunities to college accounting [9]. On the one hand, the application of advanced digital technologies, such as financial robots and big data analysis, greatly improves the efficiency of accounting, can quickly handle a large number of repetitive accounting work, reduce human errors and improve the accuracy of data. On the other hand, with the help of digital platform, the transmission and sharing of accounting information in universities is more convenient, and different departments can obtain the required financial information in real time, which is helpful to improve the synergy of financial management. However, challenges have followed. First, data security risks have increased. In the digital environment, accounting data is stored and transmitted in electronic form, and once it encounters network attacks, data leakage and other events, it will pose a serious threat to the financial security of universities [10]. Secondly, the professional ability of accountants is facing a test. The era of digital economy requires accountants not only to have traditional accounting knowledge, but also to master digital technology and data analysis ability. At present, some university accountants are still lacking in this ability.

3. Analysis of factors affecting the quality of accounting in universities

The perfection and adaptability of accounting system in universities play a fundamental supporting role in accounting quality. A scientific and reasonable accounting system should cover the setting of accounting subjects, the standardization of accounting processes, the preparation of financial reports and other aspects. However, the current accounting system in some universities is lagging behind, and it has not been updated in time according to the characteristics of the digital economy era and the business development of universities. Figure 1 visually presents the main problems and their proportions in the system:

Specific Manifestations	Issue Type	Proportion of Universities Involved	Impact Level
No rules formulated for new businesses under the digital economy (e.g., revenue accounting for online education)	Outdated System	35%	4
Multiple reimbursement approval steps, complex procedures, and time-consuming	Cumbersome Accounting Process	25%	3
Inability to clearly distinguish between research and teaching special-purpose fund revenue and expenditure accounts	Unreasonable Account Setup	20%	3
Incomplete disclosure of financial report notes, lack of detailed explanations for key data	Inadequate Reporting Standards	20%	3
Conflicts with the regulations of higher authorities and other internal management systems within the university	Poor System Integration	15%	3
Accounting personnel and business departments lack in-depth understanding of new systems	Insufficient System Promotion	10%	2

Figure 1 Investigation on accounting system in some universities

The application level of digital technology in college accounting is directly related to the efficiency and quality of accounting. Advanced financial information system can realize automatic

data collection, processing and analysis, and improve the accuracy of accounting. However, some universities have some shortcomings in technology application. On the one hand, the data docking between financial information system and other business systems (such as scientific research management system and asset management system) is not smooth, which leads to the phenomenon of information island, making it difficult to obtain the data needed for accounting comprehensively and accurately. On the other hand, some universities' financial information systems are slow to update, which can't effectively cope with large data processing and complex business scenarios, reducing accounting efficiency and quality.

As the direct executors of accounting work in universities, accountants' professional quality and professional ability play a decisive role in accounting quality. In the era of digital economy, accountants should not only be proficient in traditional accounting theory and practice, but also have digital skills and data analysis ability. However, from the actual situation, the age structure of accounting personnel in some universities is aging, and their ability to accept new knowledge and technology is weak. According to the survey, about 40% of university accountants said that there are great difficulties in learning and applying emerging digital technologies, such as the lack of understanding of the application principle of blockchain technology in accounting, and the inability to effectively use this technology to ensure the authenticity and non-tampering of data.

The effectiveness of financial management mode and internal control in universities plays an important role in ensuring the quality of accounting. Scientific financial management mode can rationally allocate financial resources and provide a good operating environment for accounting. However, some universities have the problem of backward financial management concept, paying too much attention to budget control and ignoring the comprehensive prevention and control of financial risks. In terms of internal control, the internal audit supervision mechanism of some universities is not perfect, and the supervision of accounting process is insufficient, so it is difficult to find potential problems in the accounting process, thus affecting the accounting quality.

4. Ways to improve the quality of accounting in universities

In the era of digital economy, in order to effectively improve the quality of accounting in universities, it is necessary to construct a comprehensive and targeted promotion path from multiple theoretical perspectives.

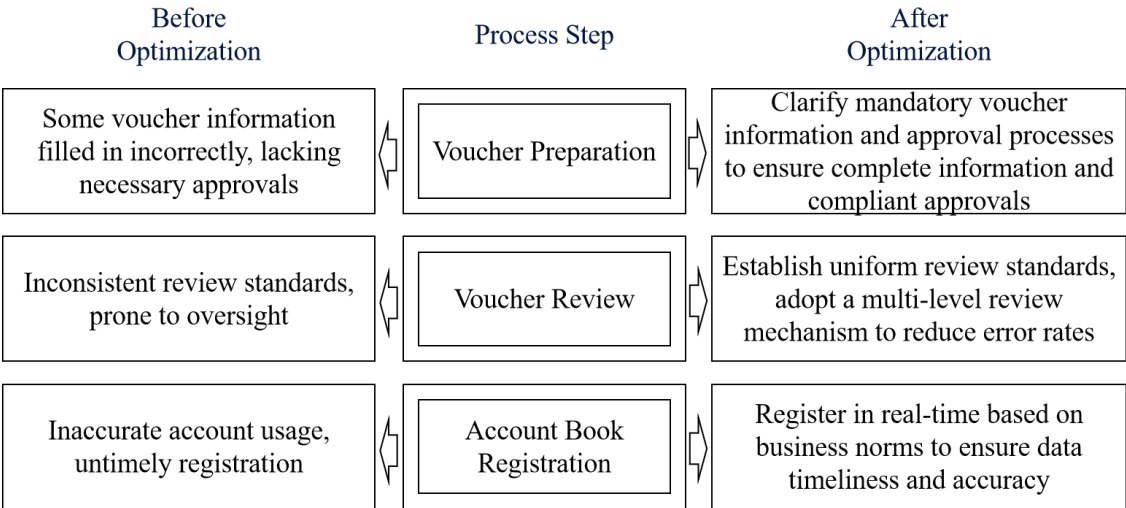


Figure 2 Comparison of accounting process before and after optimization

Accounting theory provides basic principles and methods for college accounting. According to the requirements of accuracy and standardization of accounting, universities should reorganize and optimize the accounting process. The finance department of universities first needs to standardize the filling and review of accounting vouchers to ensure the authenticity, completeness, and accuracy of the original vouchers and the preparation of accounting vouchers. Secondly, the establishment and registration of accounting books should be improved, accounting subjects should be

scientifically set according to the characteristics of university business, and various economic transactions should be clearly recorded. By optimizing the process, human error can be reduced and accounting quality can be improved. Figure 2 shows the differences in key links such as voucher processing and account book registration before and after optimization.

The theory of digital transformation emphasizes the use of digital technology to vigorously promote business change. In today's digital economy era, universities, as an important place for knowledge innovation and talent training, should actively and actively increase the application of digital technology in the accounting field. Universities need to actively introduce advanced financial software and information systems to realize the automation and intelligence of accounting work. Universities should focus on strengthening the deep integration between financial information systems and other business systems, and try their best to break the situation of information islands. Specifically, universities can realize the real-time data interaction and sharing between financial information system and scientific research management system, teaching management system, asset management system and other business systems by establishing a fully functional data sharing platform. In this way, the accounting work can obtain accurate and comprehensive business data in real time, thus greatly improving the accuracy and timeliness of accounting. For example, in the scientific research project management, the scientific research management system updates the project progress and the use of funds in real time. Through the data sharing platform, the financial information system can obtain these data in time, accurately calculate and manage the scientific research funds, and provide strong financial support for the smooth development of scientific research work in universities.

Risk management theory is of great guiding significance for universities to effectively identify, accurately evaluate and properly deal with various risks in the accounting process. Based on this, universities must build a perfect and scientific accounting risk prevention and control system. Universities should attach great importance to and strengthen data security management. In the digital environment, accounting data are facing many security threats, such as network attacks and data leakage. In order to ensure the security of accounting data in the process of storage and transmission, universities should adopt advanced encryption technology to encrypt key data to ensure that the data is difficult to be cracked even if it is stolen. At the same time, strict access control measures are implemented, and different access rights are set for different personnel. Only authorized personnel can access specific data, thus effectively preventing illegal acquisition and tampering of data. Universities need to establish a scientific and reasonable risk early warning mechanism. By carefully setting a series of key indicators, the accounting process is monitored in real time and dynamically.

From Table 1, it can be found that different promotion paths have significant effects on the quality of accounting in colleges and universities. With the introduction of intelligent financial robots, the "accounting efficiency" and "data accuracy" are improved by 95% and 90%, which shows that digital tools have great potential in improving efficiency and reducing human errors. However, the cost of this path has increased by as much as 85%, which means that universities should fully consider the capital budget and technical maintenance ability to promote intelligent transformation. In contrast, organizing professional training regularly has the best effect in improving personnel's ability, which can reach 90%, but it has relatively limited influence on accounting efficiency, data accuracy and risk prevention and control. This shows that it is difficult to comprehensively improve the quality of accounting only by improving the quality of personnel, and it is also necessary to combine system optimization and technical support. Building a risk prevention and control system has performed well in "enhancing risk prevention and control capabilities", reaching 95%. However, it does not play a strong role in improving accounting efficiency and personnel ability, and is suitable for enhancing the ability of universities to deal with data security threats in the digital economy environment.

The theory of human resource management always pays attention to the all-round cultivation and sustainable development of employees' ability. For universities, using this theory to improve the quality of accountants is the key link to improve the quality of accounting. On the one hand,

universities should regularly organize accountants to participate in high-quality professional training. The training content should cover the latest accounting laws and regulations, accounting standards and other professional knowledge, so as to ensure that accountants can understand and follow the relevant national policies and regulations in a timely manner for accounting work. The training content also includes the application of digital technology in the accounting field, such as big data analysis, the application of artificial intelligence in financial decision-making and other cutting-edge knowledge. Through these trainings, the knowledge of accountants can be broadened, so that they can keep up with the pace of development of the times and master advanced accounting techniques and methods. On the other hand, universities should actively encourage accountants to participate in various practical exchange activities. Universities can organize accounting personnel to visit universities with advanced accounting experience and learn about their successful practices and innovative models in the process of digital transformation. In addition, universities should encourage accounting personnel to participate in industry activities such as academic seminars and experience exchange meetings to promote experience sharing and ideological exchange. Through these practical exchange activities, accountants can learn advanced accounting experience from other universities, constantly improve their professional ability, and then provide solid human support for high-quality accounting work in universities.

Table 1 Effectiveness Evaluation of Strategies for Improving University Accounting Quality (%)

Improvement Strategy	Efficiency Improvement	Data Accuracy Enhancement	Risk Prevention Enhancement	Staff Competency Improvement	Cost Increase	Overall Satisfaction
Optimizing Accounting Processes	75	80	65	40	30	72
Strengthening Digital Technology Application	90	85	70	60	80	81
Establishing a Risk Prevention System	60	70	95	35	45	75
Enhancing Financial Data Sharing Platforms	85	90	75	50	60	80
Regular Professional Training	50	60	40	90	25	68
Promoting Integration of Finance and Operations	80	75	65	55	35	73
Introducing Intelligent Financial Robots	95	90	60	70	85	84
Establishing a Performance Evaluation Mechanism	65	60	70	80	20	69

5. Conclusions

This article focuses on improving the quality of accounting in universities in the era of digital economy, comprehensively analyzes the factors affecting the quality of accounting, and puts forward targeted ways to improve it. In terms of influencing factors, the lag of system, the limitation of technology application, the lack of professional ability of personnel and the imperfection of management mode all restrict the improvement of accounting quality in universities. For example, the system lacks rules when dealing with new business, and there is a data docking problem in the information system technically.

In order to solve these problems, the promotion path based on different theories is of great significance. Optimizing accounting process from accounting theory can standardize accounting behavior; Strengthening technical application with digital transformation theory can improve

accounting efficiency and accuracy. Universities should establish a prevention and control system based on risk management theory to ensure data security and stable accounting work; At the same time, it is necessary to apply human resource management theory to enhance personnel quality and provide professional talent support for accounting work.

Through multi-path collaborative implementation, it is expected to significantly improve the quality of accounting in universities and realize the digital transformation and upgrading of financial management in universities. With the continuous development of digital economy, accounting in universities should continue to pay attention to new technologies and new businesses, constantly improve accounting systems and processes, and enhance personnel capabilities to adapt to the ever-changing internal and external environment and ensure the rational allocation and sustainable development of resources in universities.

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