Exploring the Reform of Financial Management Courses in the Context of Digitalization

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Abstract. In the context of digitalization, the reform of financial management courses is imperative. This paper discusses the reform direction of digital financial management courses mainly from the aspects of introducing digital technology, emphasizing practical teaching, cultivating the ability of data analysis, integrating interdisciplinary knowledge, and improving the digital literacy of the teaching team. Through these reform measures, it is expected to cultivate more composite talents with financial management theory and practical skills to meet the needs of enterprise digital reform.

Keywords: Digitalization;Financial management; Optimization and improvement.

1   Introduction

With the development of digital technology, the way of education is also changing. Digital teaching not only breaks through the limitations of the traditional teaching mode, but also meets the needs of the majority of students for personalized learning. The use of digital teaching methods can realize the optimal allocation of educational resources, provide students with rich and differentiated learning experiences, help stimulate students' creativity, and cultivate students' innovative literacy. In this context, educators need to constantly update their teaching concepts and teaching methods, and make full use of digital technology to optimize the educational process. At the same time, students also need to adapt to this new teaching mode and actively participate in the learning process to achieve personalized development.[1] China has always held a positive attitude towards education reform related to digitalization, encouraging and promoting the application of digital technology in the field of education. 2021, the Ministry of Education issued the "Catalogue of Vocational Education Specialties (2021)", which is a directory of vocational education specialties. To realize the strategic goal of digital China, teachers are needed to break through the bottleneck, improve digital literacy, digital hands-on ability and digital education ability, and break their own knowledge structure barriers in the field of education, industry, and economy, so as to make the digital reform high-quality into the classroom. This paper takes the financial management courses in the majors of big data and accounting and big data and financial

management as the main body to discuss the deficiencies in the classroom teaching links and the teaching response strategies adopted under the changes of the new version of the professional catalog.

2 Analysis of the Need for Digital Reform of Financial Management Courses

2.1 Meet The Needs of the Digital Economy Era

With the rapid development of the digital economy, the needs of enterprises for financial management personnel have changed. The digital teaching mode can cultivate applied talents with a combination of theory and practice, digital thinking and management concepts, help students master the professional knowledge that financial management talents need to have in the era of the digital economy, and cultivate applied talents with vocational skills such as enterprise fundraising management, investment management, operation management and data analysis.[2]

2.2 Improve the Quality of Teaching

The digital teaching mode improves the quality of teaching by integrating digital technology with course teaching, establishing a digital learning environment, innovating the teaching mode, and developing teaching in the direction of precision and personalization. At the same time, by optimizing the assessment mechanism, fully mobilizing students' autonomy and initiative, adhering to the student-centered education concept, incorporating students' independent learning sessions, performance in the learning process and online assessment results into the course evaluation system, and realizing the transparency of the teaching process, the visualization of the teaching quality and the mobility of the teaching service.

2.3 Promote the Development of Teaching Teams

The digital teaching mode can promote more teaching teams to actively engage in the exploration and practice of the digital teaching mode, thus providing new ideas for further exploration and research in intelligent education management.

2.4 Integration of Cutting-Edge Knowledge and Advanced Technology

The digital teaching mode can supplement the relevant cutting-edge knowledge of the course, optimize the course content, enhance the higher-order nature of the course, use information technology to improve the interactivity and advancement of the lecture mode, and increase the innovativeness of the course's teaching methods and teaching means.

The digital reform of financial management courses is necessary to better meet the needs of the digital economy era, improve the quality of teaching, promote the development of the teaching team, as well as incorporate cutting-edge knowledge and advanced technology.

3   Problems of the Traditional Financial Management Professional Curriculum System

In the context of digitalization, there are some problems in the curriculum system of financial management majors, which affect the realization of the cultivation objectives of new business talents.

3.1   The Course Structure is Unreasonable

The role played by financial managers in enterprise operation and management is different from that of accounting majors, but under the traditional training mode of financial and accounting talents, the curricula of financial management majors and accounting majors are not well differentiated, and they do not reflect the professional characteristics of financial management. In addition, there are fewer new business courses, which is contrary to the goal of cultivating high-quality comprehensive new business talents in China.

3.2   The Practical Teaching Link is Weak

Under the background of digitalization, enterprises need "new business" financial management talents with the ability to analyze and solve practical problems. However, under the current financial management talent training model, most universities have set up practical courses that account for a relatively small proportion of the total curriculum, and the investment in laboratories is seriously insufficient, which leads to students and teachers paying little attention to the learning and teaching of practical courses.[3]

3.3   The Teacher Strength is Insufficient

Although most of the financial management teachers have profound insights in financial management, economics, finance and other theoretical knowledge, they lack the understanding of the new theoretical and practical knowledge generated in the context of "digitalization" such as intelligent finance, big data financial analysis, financial sharing and so on, due to the fact that they have studied fewer practical courses during their school years. At the same time, they lack practical work experience in smart finance, so it is difficult to provide students with interdisciplinary guidance for new business practice courses.

3.4   Teachers' Teaching Methods and Tools are Outdated

Most of the teachers still use traditional teaching tools to teach in a "classroom" style, which is boring for college students living in the information age. Although many mature informatization teaching tools have been developed, some teachers have a low level of acceptance of new informatization teaching tools, and they still remain at the stage of teaching knowledge through PPT.

4   Directions for Reforming the Financial Management Curriculum in the Context of Digitization

4.1   Introducing Digital Technology

Introducing the application of digital technology in the financial management course is one of the important directions of reform. For example, teachers can teach students how to use financial software for financial statement preparation and analysis, and how to use data visualization tools to display and interpret financial data. Through such teaching methods, students can become more familiar with the use of digital tools and improve their ability to process and analyze data. In addition, teachers can also introduce digital resources such as online learning platforms and virtual laboratories to provide students with a rich learning experience.

4.2   Emphasize Practical Teaching

Traditional financial management courses often favor the teaching of theoretical knowledge and neglect the cultivation of practical ability. Financial management courses in the digital context should pay more attention to practical teaching, such as organizing students to participate in financial management practice projects in simulated enterprises, allowing students to personally operate financial software, analyze financial data, and solve practical problems. This kind of practical teaching can help students better understand and apply financial management knowledge, and improve their practical ability. At the same time, the school can also cooperate with enterprises to establish off-campus practice bases, so that students can exercise their financial management skills in the actual working environment.

4.3   Improve the Digital Literacy of the Teaching Team

In order to better carry out the teaching of digital financial management, the digital literacy of the teaching team is crucial. Schools should increase the training of the teacher team to improve their digital teaching ability. At the same time, teachers are encouraged to participate in academic research and practical activities in related fields in order to improve their professional literacy in the field of digital financial management. This will help improve the quality of digital teaching in financial management

courses and cultivate more financial management talents who can adapt to the needs of the digital era.

4.4   Integration of Interdisciplinary Knowledge

The digital financial management course should focus on integrating interdisciplinary knowledge, such as information technology, big data, artificial intelligence and so on. This will help cultivate students' interdisciplinary thinking and improve their financial management ability in the digital environment. For example, teachers can introduce the application of artificial intelligence in financial forecasting and risk management in the course, so that students can understand and master the practical application of these cutting-edge technologies in the field of financial management.

5   Digital Teaching Reform Strategies

5.1   Reorganize the Teaching Content of Financial Management Courses to Enhance the Cultivation of Digital Application Ability

5.1.1 Integrate Excel Financial Functions to Improve the Basic Ability of Data Processing.

Excel spreadsheets provide numerous financial functions, covering the principles of financial management, financing management decisions, investment management decisions, value-at-risk measurements, statement analysis, comprehensive cost of capital calculations and other aspects.[4] For example, in the principle of financial management, including the present value of the Pv function, for the final value of the Fv function, for the term of the Nper function, for the interest rate of the Rate function, for the annuity of the Pmt function, for the annuity in the principal of the Ppmt function as well as for the annuity in the interest Ipmt function. In the financing management decision, there is a nominal interest rate for the Nominal function, for the real interest rate Effect function, for a one-time payment and receipt of interest rates Accrintm function, as well as sub-interest Accrint function. In the intelligent judgment, it will involve the If and other functions. These financial functions are easy to learn and use, and can significantly improve the efficiency and accuracy of the calculation of relevant indicators.

5.1.2 Use Excel Analysis Tools to Improve the Ability to Solve Complex Problems.

Excel spreadsheet provides such as univariate solution, planning solution, regression analysis, descriptive statistical analysis and other analytical tools. Using these tools, the complex calculation process can be automatically completed by the computer, saving a lot of time for teachers and students.   In the teaching process, the integration of data analysis tools into teaching can not only efficiently explain financial knowledge, but also show the application of data analysis tools in the field of finance, so that the principle, method and application of tools are organically combined to improve students' ability to solve complex problems.

5.1.3 Use Excel Controls to Make Their Own Virtual Simulation Teaching System to Enhance the Comprehensibility of the Decision-Making Process.

The virtual simulation teaching examples of financial management courses can be realized through the controls and chart functions in the Excel sheet. Excel spreadsheet provides line graphs, scatter diagrams, radar charts, bar charts, composite charts and other chart types, presenting intuitive, easy to understand characteristics. Practice has proved that in the financial management course into Excel functions, analytical tools and dynamic charts, not only will not crowd the financial management course time structure, but also to improve teaching efficiency and effectiveness.

Therefore, in the teaching of financial management courses, you can restructure the teaching content of financial management courses through three application scenarios: quick application of functions, data analysis tools, data visualization, to further expand the depth and application of financial management courses, to ensure the realization of the reform of digital teaching of financial management courses from the supply of teaching content, teaching methodology and application of the teacher's digital capacity.

5.2   Strengthen Teachers' Digitalization Ability Training and Enhance the Automated Processing of Financial Data

5.2.1 Learn to Apply Excelvba Programming to Realize the Automation of Data Processing for Teaching Demonstration.

Vb editor is a programming language that comes with Excel, and the use of Vb to prepare or record macro code can realize the automation of data processing. Teachers need to strengthen the learning and training of Excel VBA programming knowledge, so as to ensure the realization of the digital teaching reform of financial management courses. In fact, as long as teachers master variables, worksheets and cell objects, If judgment statements, For loop statements, For Each command and other programming basics, basically can meet the requirements of automated processing of financial data for financial management course teaching to provide strong technical support. Through the use of these programming skills, teachers can show students the application of Excel data automation processing in the teaching process, so that students can better understand the characteristics of intelligent finance.

5.2.2 Learning and Applying Python Language to Solve The Dilemma of Limited Practice Base Outside the School.

The rapid development of the Internet and the public disclosure of information of listed companies provide rich materials for case teaching in financial management courses. However, how to change the classroom principle teaching into the application learning based on the real data of enterprises has become a big challenge for the current teaching reform. Python, as a powerful programming language, provides convenience for teachers to obtain the real data of enterprises, and helps to solve the dilemma of limited off-campus practice bases and practice methods.[5]Python has a perfect library covering network, GUI, database, etc., and many functions are available on the Internet.

With the help of Python language, a series of financial decision-making dilemmas, such as the difficulty of data acquisition and the lack of evaluation criteria, can be effectively solved. In addition, Python can be used to make financial models and simulate the business decision-making process, so that students can master financial management knowledge in actual operation. Python as a practical and easy-to-learn programming language, provides strong support for the teaching reform of financial management courses. By integrating Python into teaching, teachers can better guide students to learn the application of real data in enterprises and cultivate students' practical ability and innovation consciousness to adapt to the changing market environment.

5.3   Improve the Digital Teaching Standards of Courses and Promote the Integration and Application of Information Technology

5.3.1 Refine the Teaching Standards of Digital Competence of Courses.

With the continuous emergence of new technologies, the application scenarios and teaching scenarios of financial management have changed accordingly. [6]Therefore, professional leaders need to gain insight into the impact of digital reform on teaching, and supplement and refine the digital competence teaching standards of relevant courses.   Colleges and universities should increase their investment in the digital reform of financial management courses, encourage teachers to participate in relevant training, and improve their digital teaching ability. At the same time, the curriculum should be improved to ensure that students can master the latest financial management digital technology, such as Excel financial functions, data analysis tools, chart drawing and analysis.

5.3.2 Prepare Practical Training Materials on Digital Application Skills for the Curriculum.

Digital application is a skill that requires combining the knowledge of financial management courses or specialties with digital technology. This not only requires digital quality and application skills, but also requires the integration of financial management theory. It is necessary to prepare teaching materials related to the digital competence practical training of financial management, and systematically, deeply and standardly carry out the research and application of digital competence teaching in financial management courses. This will help to adapt to or promote the talent demand of enterprise digital reform and cultivate compound talents with financial management theory and practical skills.

6   Conclusions

By constantly improving the digital teaching system of financial management courses, teachers can better guide students to apply their theoretical knowledge to real work and improve their practical operation ability and innovation consciousness. In the teaching process, teachers can use a variety of teaching tools, such as online teaching platforms

and virtual laboratories, to provide students with rich digital learning resources. In addition, it can also cooperate with enterprises to establish off-campus practice bases, so that students can exercise their financial management digitalization skills in the actual working environment. This will help cultivate the key skills students need in the enterprise digitalization reform and lay a solid foundation for their future career development.

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References

1. WANG Yongyan, WEN Subin. Industry to talent Xing: digital financial talents training mode for world-class financial management system[J]. Finance and Accounting Monthly,2023,44(11):16-22.
2. Zhang M, Wu Ting, Shi Chunling et al. Smart finance talent types and cultivation models: a preliminary framework[J]. Accounting Research,2022(11):14-26.
3. Lei Shuangcheng. Exploration and Practice of Digital Teaching Mode in Financial Management Courses[J]. Education Informatization Forum,2022(07):30-32.
4. Tou Zhibin. Path and teaching realization of financial management digital application ability cultivation[J]. Business Accounting,2022(06):121-124.
5. Leitner-Hanetseder S, Lehner O M, Eisl C, Forstenlechner C.A profession in transition: actors, tasks and roles in AI-based accounting[J].Journal of Applied Accounting Research, 2021(22):539-555.
6. Hung TV, Yellishetty M, Thanh NT, Patil A, Le TH. The Application of Flipped Class room in Teaching University Students: A Case Study From Vietnam[J].2017;6(1):40-52.