

Research on the integration of entrepreneurship and innovation education and accounting education—Taking big data accounting and intelligent finance courses as an example

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Keywords: Mass entrepreneurship and innovation; Accounting; Integration

Abstract: Mass entrepreneurship and innovation "(hereinafter referred to as" mass entrepreneurship and innovation ") is an important means to promote the sustainable development of China's economy. By encouraging the general public to participate in innovation and entrepreneurship, it can stimulate the potential for social innovation, improve the efficiency of social innovation, accelerate the formation of an innovation and entrepreneurship ecosystem where the government, market, and society work together and interact in a positive manner, thereby promoting sustainable economic development. By integrating entrepreneurship and innovation with professional courses, innovative talents can be cultivated and the overall innovation capacity of the country can be enhanced. Through entrepreneurship and innovation, more young people can be encouraged and trained to engage in technological innovation, enhance the overall innovation capacity of the country, and promote China's transformation from a "manufacturing powerhouse" to an "innovation powerhouse". Taking this as the starting point, the article starts from the background of entrepreneurship and innovation education, fully studies the impact of entrepreneurship and innovation education on the Accounting profession, analyzes the integration of entrepreneurship and innovation education and the current Accounting profession, and then takes the Big data accounting and intelligent finance course as an example to study the problems of the course in cultivating "entrepreneurship and innovation" talents, and finally puts forward the reform strategy of Accounting teaching under the background of entrepreneurship and innovation education.

1. Introduction

Mass entrepreneurship and innovation play an important role in promoting the reform of China's economy. Through mass entrepreneurship and innovation, on the one hand, it can promote the Economic restructuring, transformation and upgrading, and can spawn a large number of new business types, new industries and new models. These emerging industries will help promote the

Economic restructuring, transformation and upgrading, and help China's economy transform from traditional manufacturing to high-end manufacturing, from extensive to intensive. On the other hand, entrepreneurship and innovation can also expand employment opportunities and increase residents' income. The vigorous development of innovation and entrepreneurship can drive more employment opportunities and improve residents' income levels. At the same time, entrepreneurship and innovation can also promote the narrowing of the income gap between urban and rural residents, further promote social equity and coordinated economic development, and promote social innovation and the improvement of public service levels. For example, in social fields such as environmental protection, education, and healthcare, innovation and entrepreneurship can provide more high-quality public services to meet the needs of the people.

The integration of Accounting specialty and entrepreneurship and innovation refers to the integration of innovative and entrepreneurial elements into Accounting professional education to cultivate compound accounting talents with innovative thinking and entrepreneurial ability. In practical practice, practical cases of integration of Accounting and entrepreneurship and innovation are emerging. For example, some colleges and universities have set up innovation and entrepreneurship courses to encourage students to participate in entrepreneurial competitions and projects, and provide corresponding support and guidance; Some companies have established innovation and entrepreneurship platforms to provide entrepreneurial opportunities and resources for internal employees, encouraging them to innovate and try; Some institutions have established innovation and entrepreneurship parks to attract excellent entrepreneurial teams and projects, and provide corresponding policy and resource support.

The integration of Accounting and mass entrepreneurship and innovation can not only cultivate students' innovation awareness and entrepreneurial ability, improve the quality of talent training in schools, but also promote economic development and social progress. At the same time, these practice cases also provide us with valuable experience and ideas and directions for further promoting the integration of Accounting and entrepreneurship and innovation.

2. Current research status at home and abroad

Yang Di (2023) believes that the "innovation and entrepreneurship" education reform is an urgent need for the country to implement the innovation driven development strategy and promote economic upgrading and improvement. It is also an important measure to promote the comprehensive reform of higher education and promote higher quality entrepreneurship and employment for college graduates. With the acceleration of China's digital process, the application of Big data technology can inject new vitality into the "entrepreneurship and innovation" education reform. Based on the perspective of "mass entrepreneurship and innovation" education, this research summarizes the current situation of Accounting professional teaching and practice development in China's universities, explains the role of Big data in promoting the reform of Accounting innovation and entrepreneurship education, and proposes specific measures for Big data to serve Accounting professional teaching and practice from the perspective of "mass entrepreneurship and innovation".^[1] Yu Lei, Cui Qian, and Xu Zheng (2021) argue that in the context of the rapid integration of information technology and accounting development, there has been a "disruptive" change in the functions, objectives, technologies, procedures, and content of traditional accounting. At the same time, new requirements have been put forward for the training mode of accounting talents. In this context, in accordance with the overall requirements of the construction of the "New Liberal Arts", this study fully integrates the OBE concept, integrates the reform of accounting professional talent cultivation mode with accounting skills competitions and entrepreneurship and innovation competitions, constructs a new "competition education integration"

talent cultivation mode that takes competition as the standard, promotes reform through competition, and innovatively proposes the "N * N+1" full process assessment mode, which includes multiple methods. The process assessment (N * N) and final assessment of multiple tools are effectively combined to comprehensively evaluate the quality of accounting talent cultivation from three levels: knowledge, ability, and quality. [2] Qi Si (2021) studied the training mode of Accounting professionals in higher vocational colleges based on the "mass entrepreneurship and innovation" orientation. The research believed that under the background of innovative cultivation of new momentum and transformation and development of new economy, college students become the new force for the country to implement the innovation driven development strategy. As the closest higher education unit to the front line of social production, vocational colleges' traditional accounting talent training mode is no longer suitable for the social and economic needs centered on new industries, new formats, and new business models. They must be guided by innovation and creation, with the redesign of the accounting teaching system as the starting point, resource integration as the leverage, the construction of innovation and entrepreneurship service platforms as the starting point, and organization, finance, and information as the guarantee, Cultivate high-quality, innovative, and entrepreneurial accounting talents. On the basis of analyzing the current situation and problems, this study constructs an accounting talent training model guided by innovation and entrepreneurship, providing reference suggestions for the training of accounting professionals in vocational colleges. [3]

Zhao X, Yang K (2022) found that in the new era, education and entrepreneurship are the two major areas of concern for the entire society. Cultivating innovative and entrepreneurial composite talents for the country is an important mission entrusted to universities by the times. Accounting, as a key and popular major in national higher education, has been explored by various universities for its talent cultivation mode. The rapid development of the economy and the pressure of employment have put forward higher requirements for accounting students. The comprehensive ability of innovation and entrepreneurship has gradually become one of the important indicators to measure the quality and level of student training. This study takes Jiangsu Independent College as an example, based on the current development status of accounting industry and accounting major students, analyzes the importance of innovation and entrepreneurship training, and analyzes the root causes of problems. Finally, corresponding solutions are proposed to promote the further development of innovation and entrepreneurship education reform in China. [4] Jue W and Jianhua W (2019) argue that the integration of professional courses and innovation is an important aspect of deepening innovation and entrepreneurship education reform in China. Based on this point of view, the research divides accounting education into Foundation Stage, professional stage and comprehensive stage, constructs the curriculum system of accounting specialty from the theoretical and practical levels, proposes to integrate the theme elements of innovation and entrepreneurship into the core curriculum teaching, highlight the cultivation of innovation ability, speed up the informatization construction of high-quality courses of accounting education, and develop a model curriculum with distinctive characteristics combining specialty and innovation in combination with curriculum reform. [5]

3. Problems in the integration of mass entrepreneurship and innovation education and current Accounting

At present, more and more colleges and universities begin to integrate entrepreneurship and innovation education into Accounting specialty to enhance students' practical ability and innovation ability. However, in practical operation, there are still some problems with this fusion.

3.1 The content setting of curriculum innovation and entrepreneurship education is not reasonable enough

When many colleges and universities integrate entrepreneurship and innovation education into Accounting, they simply add some innovation and entrepreneurship content to the original curriculum, without fully considering the actual needs of Accounting and innovation and entrepreneurship. This approach makes it difficult for students to combine theoretical knowledge of innovation and entrepreneurship with accounting practice, which affects learning outcomes. Taking the Big data accounting and intelligent finance course as an example, at present, the teaching of this course is still based on learning relevant sentences, databases and other local applications, and does not form a whole of these contents. Moreover, through the study of this section, students only understand the basic functions of accounting, such as accounting vouchers, account books, reports, etc., and cannot grasp the methods of corporate financial decision-making through data analysis, ignoring the essence of "accounting service management". At the same time, there is also a lack of cultivation of students' innovative thinking. For example, in the sixth lecture of this course, in the computer experiment on Python language foundation and application, when it comes to Python control statements, the teacher simply sends the designed statement questions to the students, who then write the relevant statements according to a predetermined method. This can only help students understand the use of if statements. It does not cultivate students' flexibility in using if statements to solve practical problems.

3.2 The knowledge points in course teaching are scattered and students lack practical opportunities

Mass entrepreneurship and innovation education emphasizes the combination of practice and theory. However, in many colleges and universities, the practical teaching of Accounting is often limited to classroom simulation and case analysis, lacking real practical opportunities. This makes it difficult for students to apply their knowledge to practical entrepreneurship and innovation, limiting their development. Taking the course of Big data accounting and intelligent finance as an example, the current course setting is 32 class hours, including 20 class hours of lectures and 12 class hours of computer experiments. In the 12 class hours of computer operation, it is divided into Python basic knowledge, Python runtime environment construction and project creation, Python basic syntax and function application, Python data types and expressions (2 class hours); Python financial data storage (2 class hours); Python control statements (2 class hours); Python function (2 class hours); Financial Data and information visualization (2 class hours); Comprehensive experiments (2 class hours), except for comprehensive experiments, all other experimental content is exercises on course knowledge points, and the content involved is only partial and simulated, and cannot reflect real practice.

3.3 Professional teachers generally lack Big data and entrepreneurship and innovation training experience

As teachers of professional courses in Accounting, on the one hand, there is no systematic Big data learning experience. When designing experimental code, quite a few teachers do not know whether the experiment has run successfully, nor can they grasp the real combination of Big data technology and Accounting, and how to integrate Big data into college Accounting teaching and practice. Therefore, there is some blindness. In addition, Accounting teachers may lack training and continuing education opportunities related to Big data technology. Although some teachers may be exposed to some Big data applications in their work, they may not have in-depth knowledge of the

theory and practice of Big data technology. Many Accounting teachers may work in traditional accounting firms or enterprises, lacking practical experience related to Big data technology. This makes it difficult for them to integrate the application of Big data technology into accounting teaching, and to understand and explain the importance of Big data in the accounting field. On the other hand, Accounting teachers may lack theoretical knowledge and practical experience on innovation and entrepreneurship, which makes it difficult for them to effectively teach entrepreneurship and innovation courses and provide targeted guidance and suggestions. At the same time, due to the lack of professional training in entrepreneurship and innovation, Accounting teachers may not be able to use a variety of teaching methods to stimulate students' innovative thinking and entrepreneurship. They may lean more towards traditional teaching and explanation, while neglecting more enlightening teaching methods such as practical operations and group discussions. Moreover, due to the high demand for comprehensive professional knowledge in entrepreneurship and innovation, involving multiple interdisciplinary knowledge, and the fast iteration and strong timeliness of knowledge, teachers generally lack professional experience in entrepreneurship and innovation training, which is generally understood through self-learning or practice. Taking Big data accounting and intelligent finance course as an example, combining this course with entrepreneurship and innovation education requires professional course teachers to have Big data learning experience, Accounting professional learning experience, and entrepreneurship and innovation learning experience, which obviously requires higher requirements for teachers.

4. Measures to improve the integration of entrepreneurship and innovation education and Accounting

4.1 Building a teaching system that integrates professional courses with entrepreneurship and innovation education

(1) Incorporate entrepreneurship and innovation education into professional courses of Accounting

The curriculum can be adjusted to include courses and practical links related to innovation and entrepreneurship. For example, courses such as "Financial Management Innovation" and "Financial Entrepreneurship Risk Management" can be offered, while practical courses such as "Entrepreneurship Case Analysis" and "Innovative Enterprise Simulation" can be arranged.

(2) Introducing practical cases

The introduction of practical cases in Accounting professional courses can help students better understand the significance and application of entrepreneurship and innovation education. For example, in the course of Big data Accounting and Intelligent Finance, the financial statement data of specific companies can be introduced. Through the analysis of historical sales data, combined with Market trend and consumer behavior and other factors, future sales can be predicted to provide a basis for enterprises to develop sales plans.

(3) Add practical links

Adding practice links to Accounting professional courses can give students the opportunity to participate in innovation and entrepreneurship activities in person. For example, in the course "Big data Accounting and Intelligent Finance", students can be arranged to use python's powerful office document processing function in the computer link to compare and analyze with traditional EXCEL. By calling a third-party library to process the high-level application of automatic contract generation, students can be shown the convenience brought by python to office automation, so as to improve their interest in digging into python office applications, to lay a solid foundation for improving work efficiency in the workplace.

4.2 Constructing a learning approach that integrates course knowledge points with entrepreneurship and innovation content

It organically combines Big data accounting courses with the teaching system integrating entrepreneurship and innovation, and provides students with comprehensive and practical knowledge and skills. At the same time, this teaching system can also help students better adapt to market changes and development trends, improve their comprehensive quality and market competitiveness. In the course of Big data Accounting and Intelligent Finance, on the one hand, students can be taught how to use modern technology to collect and analyze data, including Market trend, customer needs, competitors and other information. These data can provide important reference and decision-making support for innovation and entrepreneurship, thereby helping students better grasp market opportunities and risks in the process of mass entrepreneurship and entrepreneurship. On the other hand, financial data from actual enterprises can be introduced to enable students to conduct data analysis and understand the relationship between financial data and business operations. Through this practice, students can learn how to use financial data to evaluate the operational status of enterprises, predict future development trends, and provide financial analysis and risk management capabilities for innovation and entrepreneurship.

4.3 Deepen the training system of integrating professional courses with entrepreneurship and innovation

(1) Provide opportunities for entrepreneurship and innovation training

Schools or relevant institutions can organize mass entrepreneurship and innovation training activities for Accounting teachers, introduce the concept, principle and application of mass entrepreneurship and innovation, and provide opportunities for practical operation. This can help teachers understand the concepts and methods of entrepreneurship and innovation education, and improve their abilities in entrepreneurship and innovation teaching.

(2) Strengthen connections with the industry

The school can encourage Accounting teachers to establish contacts with entrepreneurs, investors and entrepreneurs in the industry, and increase teachers' practical experience and understand the latest trends of the industry by participating in industry activities, consulting projects and other ways. This helps teachers better understand the practical needs of entrepreneurship and innovation education and apply it to teaching practice.

(3) Introducing practical projects

The school can arrange Accounting teachers to participate in practical projects, such as organizing students to participate in entrepreneurial competitions, carrying out actual Case study, etc. Through practical projects, teachers can integrate entrepreneurship and innovation education into their curriculum, providing students with practical entrepreneurial experience and guidance.

(4) Establishing interdisciplinary cooperation

The school can promote interdisciplinary cooperation between Accounting teachers and teachers of other entrepreneurship and innovation related disciplines. For example, cooperate with teachers in marketing, strategic management and technological innovation, jointly develop and teach entrepreneurship and innovation courses, and share teaching resources and experience. This interdisciplinary cooperation will help improve the level of entrepreneurship and innovation teaching of Accounting teachers, and provide more comprehensive entrepreneurship and innovation education for students.

5. Conclusions

The improvement of the living environment in beautiful villages needs to start from six aspects, namely, the revolution of rural toilets, the treatment of domestic sewage and garbage, the improvement of village appearance, the improvement of public infrastructure, the development of rural industries and the progress of rural civilization. The six aspects are mutually causal and related at all levels. In the process of implementation, on the one hand, we should pay attention to the details and keep the appearance as it is; On the other hand, it is difficult to consolidate the construction achievements in the construction of beautiful villages. The phenomenon of building before and destroying after construction is widespread. This requires all villagers to improve their own quality while working together to make our beautiful villages continue to be "beautiful".

Acknowledgements

This study is supported by the Research on the cultivation model of innovation and entrepreneurship ability of students majoring in economics and management in independent colleges (NO: 223519014).

References

- [1] Yang Di. *Teaching and practice of Big data service Accounting from the perspective of "entrepreneurship and innovation" education* [J]. *Journal of Higher Education*, 2023, 9 (02): 45-48. DOI: 10.19980/j.CN23-1593/G4. 2023. 02. 011
- [2] Yu Lei, Cui Qian, Xu Zheng. *Research on the talent training mode of "integration of competition and education" in Accounting based on OBE concept* [J]. *Economist*, 2021, No.392 (10): 219-220
- [3] Qi Si. *Research on the Training Mode of Accounting Professionals in Higher Vocational Colleges under the Guidance of "Mass Entrepreneurship and Innovation"* [J]. *Journal of Mudan River Institute of Education*, 2021, No.231 (12): 37-40
- [4] Zhao X, Yang K. *Cultivation of Innovation and Entrepreneurship Ability of Undergraduates Majoring in Business Administration: Taking the Accounting Major of Independent Colleges in Jiangsu Province as an Example*[J]. *Frontiers in Educational Research*, 2022, 5(17).
- [5] Jue W, Jianhua W. *Construction of Accounting Curriculum System Based on the Theory of Integrating Specialty and Innovation* [P]. *Proceedings of the 2019 International Conference on Economic Management and Cultural Industry (ICEMCI 2019)*, 2019.