

Research on Mechanisms for University Connotation Construction and High-Quality Employment in the Context of New Quality Productivity

Shouwei Meng, Wenyuan Meng*

North China University of Water Conservancy and Electric Power, Zhengzhou 450046, Henan Province, China

*Corresponding author: Wenyuan Meng, mwy@ncwu.edu.cn

Copyright: © 2024 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: The introduction of the concept of new quality productivity has attracted a great deal of attention in the educational community. However, there is an urgent need to align it with policy orientation and advancements in science and technology moving forward. Colleges and universities themselves should be the leaders of advanced thinking and scientific and technological development, and play their due roles in line with the development of the times to provide quality and urgent talents and intellectual support. For this reason, this paper proposes that universities should consciously establish a set of regular operation mechanisms, namely, the linkage mechanism between “social demand” and “connotation construction,” and operate regularly under the guarantee of the system. This enables universities to lead or grasp the pulse of scientific and technological development, constantly improve the level of connotation construction, promote high-quality employment, and provide high-quality services for modernization and the great rejuvenation of the Chinese nation.

Keywords: New quality productivity; Social demand; Connotation construction; Linkage mechanism; High-quality employment

Online publication: September 30, 2024

1. Introduction

In December 2023, the Central Economic Work Conference put forward that “we should lead the construction of modern industrial system with scientific and technological innovation, and emphasize the promotion of industrial innovation with scientific and technological innovation, especially disruptive and cutting-edge technologies, to give rise to new industries, new modes, new kinetic energy, and the development of new productivity.” The 2024 government work report also emphasized “vigorously promoting the construction of modern industrial system and accelerating the development of new productivity” as the top priority. The concept of new quality productivity is a strategic plan made by the leaders of the Party and the State in the face of the domestic and foreign economic development environment, grasping the level of modern scientific and

technological development, and making timely and far-sighted decisions. It is also another major arrangement for China to implement the “five development concepts” and carry out innovative development.

The intrinsic essence of new quality productivity is to take digitalization as the basis and leverage the new technological revolution represented by intelligent technology and green development technology to trigger a leap in productivity, so as to promote the rapid development of strategic and emerging industries and the upgrading of traditional industries. It involves new technologies and industries with rich and novel connotations and extensions ^[1]. Both focus on a new generation of information technology, biotechnology, new energy, new materials, advanced manufacturing, and other strategic emerging industries, including artificial intelligence, quantum information, industrial Internet, robotics, and other future industries, as well as the upgrading and advancement of traditional industries and the integration of new technologies ^[2].

2. Framework design of the linkage mechanism

2.1. Experiences in the construction of the linkage mechanism

The concept of university talent cultivation actively adapting to the needs of society has been repeatedly put forward. For example, the employment-oriented “enrollment, training, and employment” linkage mechanism, aimed at aligning with “social demand,” has seen notable progress but lacks systematic and in-depth promotion. Firstly, the complexity of the reform of the training process of colleges and universities themselves has caused a lot of resistance. Secondly, there is a lack of awareness of the need for employment within the university, the sense of responsibility to serve the community, and the necessity and urgency of their own development. Third, there is a lack of sustained institutional safeguards and supervisory measures by government authorities. Scholar has worked on this mechanism in a school in the past and achieved a number of valuable results ^[3]. The state of promoting employment has been greatly improved, and enough practical experience has been accumulated ^[4]. In this way, we can identify key issues, address challenges, and solve critical problems. The experience can be summarized in three key points: First, government authorities should treat the construction of this “linkage mechanism” as an important element of the annual assessment of colleges and universities, particularly in leadership evaluations. It is recommended to integrate this with various assessment components of undergraduate teaching, with a focus on observing the construction and effectiveness of the “linkage mechanism.” Secondly, in system design, schools should prioritize early preparation for teacher training. Proactive adjustments in disciplines and majors, curriculum development, and training model reforms should be guided by a systematic incentive policy. Since these reforms may impact the interests of current teachers, it is essential to design policies that stimulate teachers’ enthusiasm and initiative. Thirdly, schools should actively engage with relevant industry authorities and alumni employers for in-depth research to better align education with industry needs.

2.2. Design of the framework of the “linkage mechanism”

2.2.1. Supervision mechanism of government education authorities

The higher authorities of colleges and universities are responsible for supervising colleges and universities to adhere to the correct direction of running schools. It is an indispensable and important role in the construction of the linkage mechanism of colleges and universities. Its main function is to guide and urge colleges and universities to clarify the main responsibility they shoulder. In particular, supervision and assessment of some important policies implemented by the state at different times should be strengthened. The assessment results should be linked to the interests of school leadership, school evaluations, enrollment targets, and fund allocation, creating effective policy penetration and driving force. This would encourage universities to

proactively serve economic and social development ^[5].

2.2.2. Design and operation of internal linkage mechanism of colleges and universities

College leadership is the core of the linkage mechanism design and scientific operation. Colleges and universities are the main body of schooling, and college leaders, especially the main leaders, are the core of responsibility. The level of school running is related to the future destiny of the party and the country, and the well-being of people's livelihood. When determining the school's top-level positioning, it is essential to seek truth from facts. In developing disciplines and specializations, the needs of local, industrial, and national development must be considered. The design of the internal linkage mechanism should have a clear goal, demonstrate a willingness to take responsibility, encourage innovation, and be driven by wisdom and thoughtful planning ^[6].

An efficient governance layout should align with the development trends in science and technology. Modern scientific and technological advancements often require more than one discipline to achieve significant results, as major theoretical and technological breakthroughs usually involve the integration of multiple disciplines. Consequently, the management system should avoid artificial fragmentation and make comprehensive use of human, material, and financial resources. This involves integrating and managing related disciplines, specialties, and colleges, clustering them effectively, breaking down administrative divisions, and ensuring efficient utilization of manpower and resources ^[7].

2.3. Linkage between colleges and universities and external entities

In the past, colleges and universities often overlooked interactions with external entities. However, industry authorities, industry associations, graduates, and employers are valuable sources of advice. Many enterprises are ahead of academic institutions in scientific and technological research and the mastery of advanced technologies. The interaction between colleges and universities and off-campus entities mainly consists of two aspects:

- (1) Linkage with industry authorities, development and reform departments, and education authorities: Since most of these departments are familiar with the current state of industry development from the management point of view, they know what is needed in the industry. Therefore, the school should take the initiative to consult these departments to grasp the urgent need for science and technology in the development of the times and take the initiative to cultivate talents to meet the needs of the times ^[8].
- (2) Linkage with alumni and employers: This is the most important linkage that has the most direct significance for the reform of the talent training process. Graduates trained from their alma mater, after working for a period of time, are well aware of the strengths and weaknesses of each training process of the school. Normally, they can also know the gap between different institutions in talent training through the comparison of their work capability and level with their colleagues. Therefore, the opinions of the alumni group are very useful. Employers also have a more accurate overview and comparison of graduates from different schools and often give insightful opinions. At the same time, employers are the users of graduates, and their claims on graduates' knowledge structure, competence, and quality are key to determining their employment. In particular, the common perception of multiple employers may be an important basis for the reform of the school training process and the promotion of connotation construction ^[9].

2.4. Normalization and institutionalized guarantee of the operation of the linkage mechanism

The design of the above system is easy to understand. Some experts and scholars put forward similar ideas,

but most of them are shallow. The reason is that there is no regularization mechanism and the operation of this mechanism has some complexity. There is the segregation of responsibilities between departments, the contradiction of teachers' interests, and the lack of human and material resources, but these are not insurmountable difficulties. For example, the institutionalization of supervision by higher authorities, the institutionalization of mutual synergy among departments within the school, the institutionalization of external linkage, the institutionalization of financial support, and so on.

2.5. Practices and experiences of colleges and universities

The group has advanced the construction and operational effectiveness of this mechanism at a university affiliated with a former ministry in a specific industry. This institution, which has been running for over 70 years, is primarily focused on engineering but has expanded to include arts, economics, management, law, and other disciplines. This expansion has increased employment pressure. Consequently, the admissions and employment departments have led the exploration of internal and external linkage mechanisms to address these challenges. Firstly, a joint research team, consisting of around 10 members from functional departments and faculties, is sent each year to conduct research across the country with employers and graduates. This research is carried out through interviews, written questionnaires, and online feedback. The focus of the research includes graduates' political ideology and moral quality, their knowledge structure, problem-solving skills, comprehensive skills, and issues encountered during their training at the school. Employers and alumni provide honest and constructive feedback and suggestions. For example, in disciplines such as foreign languages, law, economics, and management, it is recommended to incorporate knowledge related to the school's industry-specific engineering focus. In foreign language courses, adding content like "Introduction to Engineering" and "Engineering Foreign Language" is suggested. For legal studies, incorporating "Environmental Law" and "Water Administrative Regulations" is recommended. In economics and management classes, including topics on "Industry Management" and "Industry Economy" is advisable. Given the contracting of foreign projects, adding "Foreign Language for Engineering" and incorporating "Engineering Management" and "Economic Management" into the curriculum is suggested. The common theme across these recommendations is a strong demand for composite and cross-disciplinary talents. Additionally, proposals include enhancing students' technical skills, communication, coordination, and organizational skills to improve the overall quality of personnel training and better meet the diverse needs of society ^[10].

3. Conclusion

Taking social demand as the guide, establishing a linkage mechanism between "social demand" and "connotation construction" and institutionalizing it is an effective way to cultivate high-quality talents to meet the needs of the times and continuously promote the development of the university. In the context of the development of the new quality productivity, such an internal driving mechanism is needed. In the process of development of colleges and universities, it is also necessary to form this mechanism and ensure the regular operation of the system. To ensure that colleges and universities remain at the forefront and meet public expectations, it is essential to implement effective operational mechanisms. Practice has demonstrated that this approach is both feasible and effective, making it widely applicable. Various types of institutions can learn from these practices to develop their unique characteristics and enhance their quality. Since higher education is a systematic endeavor, it is crucial for higher authorities, colleges, employers, graduates, and all sectors of society to actively contribute to achieving educational satisfaction and serving the broader goal of national rejuvenation. Everyone should play their role and contribute as much as possible.

Funding

- (1) Project of Industry and University Cooperation and Collaborative Education of Ministry of Education “Research on Teaching Ability Improvement and Practice Reform of International Economics and Trade Courses under the Background of Mathematics and Intelligence” (230711260007320)
- (2) Research and Practice Project of Higher Education Teaching Reform in Henan Province “Research and Practice of ‘Three Special and One Industrialization’ Mode of Academic Talents Training in Economics and Management in Universities with Industry Characteristics” (2024SJGLX0344)
- (3) Henan Provincial Education Science Planning Project "Research on the Interactive Influence Mechanism between Henan Provincial Higher Education Informatization and New Quality Productivity"(2025JKZD21)

Disclosure statement

The authors declare no conflict of interest.

References

- [1] Zhang Y, 2024, Human Capital Accumulation under the Perspective of New Quality Productivity: Challenges and Countermeasures. *Journal of Yanbian University (Social Science Edition)*, (04): 41–51 + 141.
- [2] Zhang X, Feng X, 2024, Development of New Quality Productive Forces: Overall Framework and Promotion Measures of Data Elements Empowerment. *Journal of Hohai University (Philosophy and Social Sciences)*, (03): 120–130.
- [3] Gu X, 2024, Changshu City: Grasping the Employment of College Graduates to Promote the Development of New Quality Productivity. *China Employment*, (08): 56–57.
- [4] Chen Y, 2024, Exploring the New Path of Employment Work in Colleges and Universities towards ‘New’ and ‘Quality.’ *Journal of Wuyi College*, 43(08): 99–103.
- [5] Su Q, Luo J, Qiu X, et al., 2024, Coupling Logic and Practice of New Quality Productivity and Scientific and Technological Talent Cultivation. *Modern Intelligence*, OnlineFirst.
- [6] Hu Y, 2024, Research on the Influence Mechanism of New Productivity Development on College Students’ Employment Willingness. *Economist*, (08): 166–167.
- [7] Yin W, Guo Z, 2024, New Productivity Enabling Guangxi’s High-Quality Development: Theoretical Logic, Practical Dilemma and Enhancement Path. *Journal of Nanning Institute of Vocational Technology*, 32(04): 84–89.
- [8] Guo H, Yan M, Bi L, 2024, Rural Revitalization Empowers New Quality Productivity and Employment of College Students Majoring in Agriculture and Sea. *Agriculture and Technology*, 44(14): 124–128.
- [9] Wang J, Pan Z, 2024, Value Implication and Practice of Labor Education for College Students Led by New Quality Productivity. *Journal of Zhengzhou Light Industry University (Social Science Edition)*, 25(04): 53–60.
- [10] Chen X, 2024, Development of New Quality Productivity to Promote High Quality and Full Employment of College Graduates. *Employment and Security*, (07): 43–45.

Publisher’s note

Bio-Byword Scientific Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.