Research on the Transition Development and Innovation Drive of Colleges and Universities based on Supply-side Reform

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Abstract—At this stage, supply-side reform has become a hot topic in the national economic reform. Based on the analysis of the trend of economic development and the current situation of higher education development, the results show that economic change often leads to the transformation of higher education, and promotes the reform of higher education. One of the important manifestations of the reform of the supply structure of higher education is the transformation, development and innovation drive of national local universities. Considering the development situation of local colleges and universities, we should firmly grasp the good opportunity of supply-side reform and change the development concept in time. Through vigorously building applied professional clusters, we should constantly deepen the strategy of talent cultivation in Colleges and universities, enhance the proportion of double-qualified teachers and other related measures to reduce theoretical academics. The supply of type talents meets the needs of social and economic development and matches the current talent supply structure with the actual needs of social and economic development.

Keywords—supply-side reform, local universities, transformation and development, innovation and driven.

I. INTRODUCTION

Deepening the reform of higher education reflects the needs of its own development, but also actively responds to the development of local and industrial needs of the country, as well as the core mission of colleges and universities to cultivate talents. At the present stage, the scale of higher education development and the popularity of mass education have shown remarkable achievements, but in the process of the actual implementation of the national strategy, there are still some concepts and practical problems that restrict the development. Higher education reform should be in line with the trend of the times, actively face up to the problems and solve the contradictions.

At present, colleges and universities pay more attention to the reform of demand, so blindly expanding the enrollment scale and refining the disciplines will make the reform and promotion stay on the development of extension, but do not attach importance to the internal construction. From the output of extension, because the evaluation system is mainly based on scientific research, colleges and universities have been publishing books and papers, while reaping higher additional benefits, but the quality of personnel training has been affected. Colleges and universities should always put the focus of teaching and work on improving personnel training and teaching quality, so as to adapt to the changes of the times and the needs of social development, strengthen internal construction, timely adjust personnel training programs, and better optimize the corresponding training mode. The overall scientific research work in Colleges and universities is still at a medium level. Many projects
are inefficient and repetitive, which makes some scholars lose confidence gradually and becomes an important reason for the lack of innovation driving force.

II. CONNOTATION OF THE TRANSITIONAL DEVELOPMENT OF COLLEGES AND UNIVERSITIES FROM THE PERSPECTIVE OF SUPPLY-SIDE REFORM

Supply-side reform mainly readjusts and optimizes the structure of the economy from the perspective of supply, thus increasing reasonable supply. The corresponding essence is that demand leads the structural optimization of supply-side. Essentially, supply-side reform is mainly market-oriented reform, in which the concept of supply and the concept of supply are the most basic issues. The supply side is mainly composed of capital, technology, labor force, system and so on. Human factors are the most critical supply factors. The main core of supply-side reform is to give full play to the positive role of human resources in market allocation. Labor market is the main way to test the quality of talent cultivation in local colleges and universities.

Today, with the sustained development of market economy, the structural reform of supply side, the adjustment of national socio-economic structure and the industrial transformation and upgrading are accelerating step by step, which has caused profound changes in the relationship between supply and demand of talents, so that the leading role of universities and colleges has taken place. Supply-driven transformation becomes better demand-driven for employers.

Under the background of economic supply-side reform, local colleges and universities should actively seize the opportunity, actively develop their initiative and attach importance to the supply-side reform of personnel training. The connotation of supply-side reform in local colleges and universities is to reduce the supply of basic and academic talents appropriately, to strengthen the talent training mode needed by social and economic development, to provide multi-specification and diversified talent training, and to realize the interaction of talent supply structure and regional economic development. Coordination. Local colleges and universities should set up professional curriculum system, attach importance to the reform of personnel training mode, increase the reasonable supply of high-level technical and skilled personnel matching the social and economic structure, and ensure that the talents trained by local colleges and universities can be more timely transformed into actual labor capacity after entering the labor market, that is, labor. Motivation, so as to enhance the local colleges and universities to train talent and the scientific convergence of the labor market.

III. THE PATH OF TRANSFORMING DEVELOPMENT AND INNOVATION DRIVING OF COLLEGES AND UNIVERSITIES FROM THE PERSPECTIVE OF SUPPLY-SIDE REFORM

Local universities are gradually transforming and developing towards applied universities, which is the only way for higher education reform at this stage. The main purpose of the supply-side reform of local undergraduate colleges and universities is to continuously meet the actual needs of social development at this stage, at the same time, to provide high-level technical and skilled talents for the development of enterprises and industries, to meet the needs of contemporary innovative and entrepreneurial talents, so as to promote the sustainable development of social and economic transformation. At the present stage, a large number of talents trained by local colleges and universities are in a serious situation of homogeneity. At the same time, they are inconsistent with the trend of social development and the transformation and upgrading of economic structure.

The lack of effective supply of high-level technical and skilled talents and high-level entrepreneurial talents required by industries and enterprises leads to difficulties in employment and recruitment. Now. If local colleges and universities want to strictly implement the transformation plan of applied universities, they should actively revolve around the actual demand of national innovation-driven development, start from the new perspective of supply-side reform, timely change the concept of development, grasp the main direction of application-oriented specialty setting, and
constantly deepen the reform of training mode of applied talents. The trend is to improve the construction efficiency of the "double-qualified" team, and take it as a reliable guarantee.

Local universities are mainly oriented to the transformation and development of application-oriented universities, thus setting up the banner of application-oriented universities and strengthening the corresponding school-running concept. At the present stage, in terms of policy analysis, the state and education departments have issued a series of policies to better guide local universities to realize the transformation plan, and gradually develop into applied universities. This fully demonstrates the call of the central government, constantly promotes the transformation of local colleges and universities, fully confirms the feasibility of the transformation and development of local colleges and universities, and gradually rises to the development strategy of national education.

Governments at all levels and relevant administrative departments of education should actively call for the timely publication of relevant policies and measures to guide and promote the belief of local universities to achieve transformation and complete the transformation to applied universities. For local colleges and universities, realizing transformation is not only a response to the call of national development strategy, but also a rational and realistic choice to change the predicament of school development. Therefore, it is necessary to establish a firm belief in transformation and constantly update the concept and strategy of running a school.

The fundamental motive force for the transformation and development of local colleges and universities is to deepen the reform of the training mode of applied talents. By actively changing the training mode of academic talents, the training scheme of applied talents can be better reflected. In the actual teaching process, through the transformation of teacher's teaching mode, students' principal position in learning is reflected, students' practical process is emphasized, class time on theoretical courses is reduced, students' practical opportunities are better strengthened, so that they can better plan the class time of practical courses and classes. Teaching and students' practical training are combined to strengthen students' practical operation ability.

The cultivation of Applied Talents in local universities should fully conform to the application-oriented teaching mode. The main teaching mode of applied universities is the integration of production, teaching and research. Such a deeply integrated teaching mode can make students fully realize the advantages of the transformation and development of local universities. Therefore, local colleges and universities should actively grasp the main line of in-depth cooperation and realize in-depth integration and coordinated development of industry, education and research in strict accordance with the advantages of integration of industry, education and research, so as to continuously promote the effectiveness of cooperation between industry, education and research, and actively seek schools and industries, schools and enterprises in various directions, levels and fields. Cooperation mode between schools and scientific research institutions. Local colleges and universities can actively introduce enterprises, and establish win-win production and operation entities, pay attention to order training, scientific research cooperation and other diversified cooperation programs, to create conditions for the training of applied talents. Actively invite industry organizations and enterprises to participate in the school's professional construction, so as to better put into practice, pay attention to the cultivation of double-qualified teachers, and evaluate the whole teaching process with effect.

Teachers in local undergraduate colleges and universities are mainly established according to academic university standards, so the number of double-qualified teachers is very small, even if they are double-qualified teachers, most of them are lack of practical ability. Local colleges and universities should train double-qualified teachers purposefully and planned, so as to increase the proportion of double-qualified teachers. In the process of training, engineers and related technicians with rich practical experience can be recruited directly from enterprises, scientific research and other counterparts in accordance with the actual needs of teaching, so that they can serve as professional
teachers. Such teachers should also be trained in teaching, teaching content and teaching skills. It should also be jointly trained with enterprises to integrate theoretical knowledge and practical experience so as to better train professional skills. We should strengthen teachers’ learning beliefs, strengthen international exchanges and cooperation, and actively select professional teachers with strong knowledge and practical experience to visit and study at applied technology universities abroad.

VI. CONCLUSION

Promoting the structural reform of supply side can adapt to and guide the new normal of economic development, and achieve innovation and development in all aspects. Higher education reform belongs to the important aspect of supply-side reform, so it has far-reaching research value and is widely concerned by all walks of life at present. The process of transformation and development of local colleges and universities is not only the actual need of social and economic development, but also the concrete manifestation of the optimization of education structure in the perspective of supply side. Local colleges and universities should constantly strengthen their understanding of the supply-side structure reform of higher education and put it into practice so as to ensure that the needs of social and economic development are met, strengthen the pertinence and practicality of specialty setting, increase the effective connection between curriculum system setting and vocational standards, and thus improve the students' reality. Practical and innovative abilities, focusing on the cultivation of high-level applied talents, so that students can better contribute to the development of enterprises and social economy, attach importance to the adaptability of talent supply in local colleges and universities to local economy and industry enterprises, and steadily improve the ability of local colleges and universities to serve local economic development and the overall level.

REFERENCES

Dutt-Mazumder M A, Button C, Robins A. (2011) “Neural Network Modelling and Dynamical System Theory”, *Sports Medicine*, 41(12), pp.1003-1011.

Jahan M S, Asaduzzaman M, Sarkar A K. (2016) “Performance of Broiler Fed on Mash, Pellet and Crumble”. *International Journal of Poultry Science*, 5(3), pp. 76-88.

Vereecken H, Herbst M. (2014) “Statistical Regression”, *Developments in Soil Science*, 30(8), pp. 3-19.

Chen W G, Peng S D, Wang Y Y. (2011) “Improved Support Vector Machine for Regression and its Application to Sensor Array Pattern Recognition”, *High Voltage Apparatus*, 47(3), pp.82-86.

Philasisdes M G, Biele G, Vavatzanidis N. (2010) “Temporal Dynamics of Prediction Error Processing During Reward-based Decision Making”, *Neuroimage*, 53(1), pp.221.

E Keshavarz, M Toloo. (2015) “Efficiency Status of A Feasible Solution in the Multi-Objective Integer Linear Programming Problems: A DEA Methodology”. *Applied Mathematical Modelling*, 39(12), pp.3236-3247

K Tone, M Tsutsui. (2010) “Dynamic DEA: A Slacks-based Measure Approach”, *Omega*, 38(4), pp.145-156.

WD Cook, LM Seiford. (2009) “Data envelopment analysis (DEA) - Thirty years on”, *European Journal of Operational Research*, 92(1), pp.1-17.

GD Ferrier, K Kerstens, PV Eeckaut. (2016) “Radial and Nonradial Technical Efficiency Measures on a DEA Reference Technology: A Comparison Using US Banking Data”, *Core Discussion Papers*, 60(4), pp. 449-479.

TT Linh, T Nanseki, Y Chomei. (2015) “Productive Efficiency of Crop Farms in Viet Nam: A DEA with a Smooth Bootstrap Application”, *Journal of Agricultural Science*, 7(5), pp.121-130.

HW Lampe, D Hilgers. (2015) “Trajectories of Efficiency Measurement: A Bibliometric Analysis of DEA and SFA”, *European Journal of Operational Research*, 240(1), pp. 1-21.

Y Deshpande . (2016) “A Montanari Sparse PCA via Covariance Thresholding”, *Journal of Machine Learning Research*, 17(1), pp. 4913-4953.

T Sueyoshi, M Goto. (2011) “DEA Approach for Unified Efficiency Measurement: Assessment of Japanese Fossil Fuel Power Generation”, *Energy Economics*, 33(2), pp. 292-303.