**REFORM OF VOCATIONAL EDUCATION IN CHINA**

(Effect For China’s Economic Growth)

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**Abstract**: Nowdays, the guideline of education reform in China is the official document: National Plan for Medium and Long-term Education Reform and Development. This plan started 2010 and is supposed to direct education reform in China until 2020. Since the plan has been implemented,this article is going reviewed national document’s to portrait the vocational education reform in China nowdays and evaluate the impact on economic development of the implementation of vocational education.At the end of 10th five-year plan, the rural students enrolled in secondary vocational school will reach 3.5 million. These schools will cultivate practical talents for rural areas in China. Reform in vocatinal education in China has significantly influece on China’s economic growth, specially on agriculture and industries sectors.

***Keywords:*** reform, vocational education, economic growth

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n China, vocational education has long been perceived by many as second-class. Students with better grades usually choose elite universities or elite schools. But in fact vocational training institutions or vocational schools are contributing, just as much to China’s success stories (CCTV, 2012). The economic in China has growth very fast than other countries and China’s share in the world trade has increased an-nually. According to the a recent WTO re-port, China’s real growth in GDP averaged 8.9 per cent over the period 1997-2004, whilst China’s share of world trade in-creased to 6.7 per cent, making it the world’s third largest trader after the Euro-pean Union (14.5 per cent) and the US (13.6 per cent) (WT/TPR/s/161, 2006, p.1). Meanwhile, many factories and companies have been built, professional workers pos-sessing special skills in every factory and company are making high quality goods and providing services. Therefore voca-tional education take an important role in China economic and society.

Nowdays, the guideline of education re-form in China is the official document: Na-tional Plan for Medium and Longterm Edu-cation Reform and Development. This plan started in 2010 and is supposed to direct education reform in China until 2020. Guided by the plan, vocational education is an indispensible part of education reform. Since the plan has been implemented for two years, this article is going portrait the vocational education reform in China now-days and evaluate the impact on economic development of implementation of voca-tional education.

The term vocational education has the same meaning as the term ‘technical and vo-cational education’ that is used by UNESCO. In contrast to general education, the aim of ‘vocational and technical edu-cation’ is to enable students to study techno-logy and related subjects and to acquire practical skills as well as knowledge related to the occupation. The broad education goal of ‘vocational and technical education’ ma-kes it differs from that of ‘vocational trai-ning’, which aims to provide training of skills and related knowledge for a specific occupation or occupation group. In terms of preparing individuals for jobs,China’s voca-tional education includes preservice edu-cation, in service education and change of-job education. It also includes academic education and non academic education. Vo-cational education is provided at elemen-tary, secondary and tertiary levels of edu-cation.

Based on the backgroud, the authors wish to find out more about reform in vocational education in China; more speci-fically, the goals of this paper are as follows: (1) What is being done to reform how vocational education has been reformed sin-ce the policy was implemented in China? and (2) What are the effect of vocational education reform in China on economic growth?

**METHOD**

This study reviewed the official documents on technical and vocational edu-cation reform in china, presented on major innovations in technical and vocational edu-cation. The study also reviewed major re-searches in the field to analyze the impact of technical and vocational education on the development of economy in China.

**RESULT**

**Reform Vocational Education in China**

Since China entered a new historical era of reform and opening to the outside world in 1978, Chinese vocational education has been energetic in growth. In 1980, formula-ted by the Ministry of Education (MoE) and the State Bureau of Labor and ratified by the State Council, the " Report on the Struc-tural Reform of Secondary Education" pointed out that the structure of secondary education should be reformed and voca-tional education be developed so as to ena-ble the senior secondary schools to meet the needs of socialistic modernization construc-tion.

In 1985,the CPC Central Committee promulgated the "Decision on the Structural Reform of Education", clearly laying down that a vocational education system with ra-tional structure and different stages from ju-nior level to senior level which could match the industrial sectors and link up with re-gular secondary education should be gra-dually established. Then in 1991, the State Council formulated the "Decision on Ener-getically Developing Vocational and Tech-nical Education" identifying the tasks and objectives for the furthering development of vocational education in the light of eco-nomic and social development in the 1990's. The " Outline on Reform and Development of Education in China" drawn up by the CPC Central Committee and the State Council in 1993 required the govern-ments at various levels to attach great im-portance to vocational education, making overall plans and boosting the development of vocational education. The outline aimed at mobilizing the initiatives of all depart-ments, enterprises, institutions and all quar-ters of the society to provide vocational education of multiple forms and various levels (CERNET, 2001).

In 1996, the first "Vocational Education Law" in China was officially promulgated and implemented, providing legal protec-tion for the development and perfection of vocational education. A year after, in the "Report of the 15th National Congress", President Jiang Zeming pointed out that the strategy of invigorating and sustaining development of China through science, technology and education. Therefore voca-tional education and adult education of va-rious forms should be actively developed. The "Decision on Deepening Educational Reform and Promoting Quality Education " published by the State Council in 1999 em-phasized that an educational system adap-ting to the socialistic market economy and the internal law of education with different types of education linking up to each other should be established, and that vocational education should be energetically develop-ped and senior secondary education in-cluding regular and vocational education should also be vigorously developed. (CERNET, 2001).

Specifically, three official documents are directing and regulating vocational edu-cation reform in china. They are: the De-cision on Improving the Reform and De-velopment of Vocational education, the De-cision on Improving the Implementation of Vocational Qualification Certificate System in Vocational Schools, and the Decision on Giving Place to Industries and Enterprises in Technical and Vocational Education and Training. (Wu and Ye, 2001, p.15).The main contents of these documents are as follows. Define the new function of tech-nical and vocational education development constructing a modern technical and voca-tional education system which is closely connected to employment, reasonably struc-tured, flexible and open, unique and in-dependent. Reasonably structured means that the majors, the level of education and the distribution of technical and vocational education should meet the needs of the changing society and economic develop-ment. Flexible and open means that tech-nical and vocational education should be community oriented and market adapted. For this, it is necessary to establish a fle-xible school system, to adopt various modes of running schools, to form an open system for technical and vocational education. Uni-que means that technical and vocational education should emphasize practical teach-ing to foster students’ practical abilities. Independent means that vocational schools should adjust themselves according to the changing of local markets and social needs. It also means expanding the autonomy of schools, strengthening their management in order to promote further development. (Wu and Ye, 2001, p.15). Deepen the reform of the technical and vocational education ma-nagement system by establishing and im-proving the administrative system of gover-nance at various level, which is planned by local government society to participate run-ning technical and vocational education (Wu and Ye, 2001, p.15).

**The implementation of vocational education reform in China**

When developing technical and voca-tional education, the government of China insists on a practical stance, providing fle-xibilities for local educational authorities to adjust policies upon the local needs, es-pecially to serve the rural schools and areas. According to from Wu and Ye (2001) the percentage of rural population is 70.1% of the total population. Employees of the pri-mary industry are 340 milion, which ac-counts for 49.9% of the total employees in China.

In this way, rural technical and voca-tional education is the key point of Chinese technical and vocational education. Wu and Ye (2001) said “*a special characteristic of the educational reform in rural areas is the combination of agriculture, science and education in planning the three types of education (basic education, technical and vocational education, along with adult education)*”. At the end of 10th five-year plan, the rural students enrolled in second-ary vocational school is projected to reach 3.5 million, and the students of western areas enrolled is 1.2 million (Wu and Ye,2001, p.14). These schools will cultivate practical talents for rural and western areas in China.

Moreover in order to reform and solve the problem of technical and vocational education in China, the nation encourages private investments through various ways to develop technical and vocational education. The sources of technical and vocational education funds are Chinese goverment, enterprises, social groups and individuals.

The investment from the Goverments is mainly used build and maintain vocational schools and vocational training institutes (Wu and Ye,2001, p.14). According to the Decision on Improving the Development and Reform of Technical and Vocational Education, the quantity share of technical and vocational education in city level education budget should be higher than 15%. In areas where 9 years compulsory education has been realized, the share should be higher than 20%. The funds are mainly used for the renewal of the ex-perimental equipment and towards the improvement of school conditions (MOE, 2002).

The central goverment increased the special category appropriation for technical and vocational education to training tech-nical and vocational teachers in rural and western areas in China, to design and de-velop curriculum and textbook, to build multimedia educational resources and to es-tablish exemplary vocational schools. Ac-cording to the vocational education law of the People’s Republic of China, enterprises should carry out technical and vocational education and worker’s training at their own cost.Vocational training of various forms has played increasingly important role in vocational education. At present, vocational training is mainly conducted and managed by the departments of education and labor, but enterprises are encouraged to provide vocational training for their em-ployees. In 2001, short term training are proved to reach 100 million person time (MoE, 2006). On the other hand the cost of the training is afforded by general enter-prises which have higher requirements placed upon workers. When the training provided by enterprises is heavy and cost effectiveness, the cost of training can be increased to 2.5% of worker’s wage (Wu and Ye,2001,p.14).

**DISCUSSION**

**Reform Vocational Education in China**

The innovation of technical and vocatio-nal education management system will be mainly reflected in following aspect.

Under the leaderships of the State Coun-cil, joint meeting of various departments within technical and vocational education is organized. Each department cooperates to manage and solvethe policy problems, in order to realize the development of tech-nical and vocational education. Strengthen the responsibility of local governments for technical and vocational education develop-ment, especially the city level governments’ responsibility of planning technical and vo-cational education. According to the vo-cational education law of the People’s Republic of China, the local governments shoulder the main responsibilities for local economic and social development. The local government determines and manages the local technical and vocational education development programs. With the adjust-ment of economic structure, a rapid ex-pansion of the local economy is apparently and planning the technical and vocational education locally will improve the relation-ship between technical and vocational edu-cation and local economic development.

The following fur steps will strengthen the local goverments’ process of planning for technical and vocational education: (1) Manpower planning. The scale, structure and development of technical and voca-tional education should be suited to the needs of the local social and economic development; technical and vocational edu-cation and other types of education should develop in a spirit of cooperation. (2) Plan-ning school system as a whole sector. While insisting on developing technical and vocational education, the goverment should plan, coordinate and support industrial or-ganization, enterprises, and social forces to run technical and vocational education schools. (3) Planning the resources. Break the department school boundaries in order to fully utilize current resources, and op-timize the schools’ regional distribution and structure according to the needs of the local economic development. (4) Coordinating policy making and implementation. For example, local education authorities should coordinate the enrollment and employment systems, determine the academic majors to be offered, and determine how to raise funds and how to use them, etc. Making policy to form a beneficial social en-vironment for the harmonious development of technical and vocational education and social economy (Wu and Ye, 2009, p.16).

Get the support of government and so-ciety for technical and vocational education forming a pattern of running technical and vocational schools in which the govern-ments plays the leading role, while indus-tries and social forces are brought into full play. The innovation of the school system is the primary characteristic of the current de-velopment of vocational education. It is necessary to fully reflect the interests of government, enterprises, industrial organi-zations, and citizens. The local education authorities should taking the leading res-ponsibility in running schools. The govern-ment should run exemplary schools and vocational training institutes, supporting and guiding the vocational schools, and en-suring that training institutes are established by industries and enterprises. Industries and enterprises are important forces in running vocational schools. Component authorities in industry should take charge of the tech-nical and vocational education and training workers. Meanwhile, those authorities should bring the efforts of industrial voca-tional organizations into play by carrying out industry human resource prediction, along with designing industrial technical and vocational education and training plans, and carrying out teaching reform, along with printing textbooks and constructing teachers’ training. The responsibilities of enterprises include designing technical and vocational education and training programs, strengthening the training bases, carrying out various post training programs, im-proving the whole quality of workers, opti-mizing the structure of the workers’ teams and strengthening the enterprises’ com-petitiveness (Wu and Ye, 2001, p.16).

Strengthen technical and vocational education’s ability to serve economy tech-nical and vocational education should serve the adjustment of economic structure and the improvement of technology, supporting employment and reemployment, serve the agriculture, the countryside and the peas-ants, and then benefit the development of western areas in China. These four abilities are the basic assumptions of technical and vocational education reform and develop-ment in the new era. In order to improve the ability of technical and vocational edu-cation to serve economic development, technical and vocational education should set up majors suited to the new industries and modern service trade. Moreover, ac-cording to the new requirements for de-veloping western areas and improving urbanization, it is necessary to adjust the technical and vocational education structure, by developing various training and service options, and construct the rural and western area in China into multi-functional and comprehensive service bodies (Wu and Ye, 2001, p.17).

Innovate technical and vocational edu-cation system-developing technical and vocational education according to the de-mand of labor market, and implementing the vocational qualification certification sy-stem to assure the quality of education. With the improvement of the socialist mar-ket economic system, the labor market has been built. The labor market has become an important factor in influencing technical and vocational education development. The demand of the labor market determines the scale and level of various vocation needs (Wu and Ye, 2001, p.17).

The dynamic change of labor market de-termines the demand of human resources in terms of their quantity, quality and struc-ture. So technical and vocational educa-tional reform and system for labor em-ployment should be developed and synchro-nized. The cultivation of schools should be closely connected with employment needs, meet the needs of the labor market, and stu-dents’ desire of employment. The teaching and curriculum at vocational schools should be in line with various labor employment system, the demands of the labor market, and standards of vocational qualification.

**Impact of vocational education reform on China’s economic**

China’s economy has beneficial from the reform in vocational education specially in agriculture and industries sectors.

***Positive impact on agriculture***

Science, technology and vocational edu-cation is considered as a pillar to support agricultural development in China. As ano-bligation, scientists and technicians are sent to the countryside to help improve agricul-ture. Besides, technical and vocational edu-cation helped to improved irrigation, agri-cultural chemicals and pesticides, as well as a good seeds, which also received special attention from the Chinese government and improved the growth of agriculture (Tantri,2010).

On Table.1 showed China has reached the world average income per capita of the agriculture population. Chinese agricultural production continues to increase and grow as fast as other modern sectors. From agri-cultural, China successfully supplying food for the entire population (about 1.3 billion people) and be able to subsidize the food needs of the world population by 27%. it can not be separated from the development of science and technology, as well as the role of vocational education in agriculture in china. in 2003, exports and imports of agricultural products china reached 40.4 billion U.S. dollars, or about 4.2% of total exports and imports of the country. China's agricultural growth has created the welfare of the people in rural areas as the main source of livelihood and agricultural pro-ducts has also helped subsidize the develop-ment of urban areas (Tantri, 2010).

**Table 1. The Biggest Agriculture Produc**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Products  (10.000 tons) | Year | | | | |
| 1989 | 1997 | 2001 | 2002 | 2003 |
| Grain | 40.755 | 49.417 | 45.264 | 45.706 | 43.070 |
| Cotton | 379 | 460 | 532 | 492 | 486 |
| Oil-Bearing Crops | 1.295 | 2.157 | 2.865 | 2897 | 2.811 |
| Meat | - | 5.269 | 6.334 | 6.587 | 6.933 |

(Source: People’s Republic of China Yearbook 2004)

***Positive impact on industry***

In industry, China has managed to be-come the country ranks fourth after the Uni-ted States, Japan, and Germany. Manu-facturing industry in China has been grow-ed rapidly over the last 20 years. Large, me-dium, and small industries all benefit from the development of vocational education re-form (Tantri, 2010).

On Table.2 China has increased its in-dustrial development since 1978-2003, the GDP growth of China has donated up to 32 times, with an average growth rate of 15%. China has managed to become an industrial country from a country with less complete industrial system to a country possessing a complete industry system with developed high technology (Zheng Ping, 1998).

The proportion of industry in the na-tion’s economy continues to grow, from 37% in 1997 to 45.3% in 2003 and revenues from industry amounted 14,148.12 trillion RMB. This shows that the process of in-dustrialization of China has growed fast.

China has been attempting a new type of industrialization that not only enhance the industry itself and the level of tech-nology, but also fundamentally changing structure of economy. Supported by the development of technologies and workforce would contribute more to development of agriculture and industry. At the same time, technical and vocational education will also prepare more high quality practitioners for the tertiary industry. (Tantri, 2010).

**CONCLUSIONS AND SUGGESTIONS**

**Table 2. Total Value of The Industry (in 100 million yuan)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Year | | | | |
| 1978 | 1989 | 1997 | 2002 | 2003 |
| **Gross Domestic Product** | 3.624 | 16.909 | 74.463 | 105.172 | 116.898 |
| Premier Industry | 1.918 | 4.228 | 14.211 | 16.117 | 17.092 |
| Seconder Industry | 1.745 | 7.278 | 37.223 | 52.980 | 61.131 |
| Industry | 1.607 | 6.484 | 32.412 | 45.975 | 52.963 |
| Construction | 138 | 794 | 4.811 | 7.005 | 8.168 |
| Tertier Industry | 861 | 5.403 | 23.029 | 36.075 | 38.675 |

(Source : People’s Republic of China Yearbook 2004)

Technical and vocational education in China has been reformed from time to time to meet the requirement of economic grow-th. Vocational education reforms in tech-nical and vocational education aimed to prepare a workforce for the nation is highly competitive in producing advance products, improving the economy and reducing po-verty in China.

Enterprises played an important role in vocational education reform. Vocational education curriculum based on the need of the local area makes the optimization of local sources to enhance economic and society.

Besides the positive effect that vocatio-nal education plays in China's economic growth, especially in agriculture and in-dustry. Vocational education in the agri-cultural sector helps local communities to optimize agricultural products through opening specialized agricultural vocational schools and providing curriculum based on the development of modern agriculture. On other hand, vocational education is anin-strument to prepare capable labor forces for enterprises in a relatively short time.

**REFERENCES**

CCTV. 2010. *Vocational education in China*.(online) (<http://www.Vocational>education in China CCTV News- CNTV English.htm),27 December 2012.

CERNET.2001. *Vocational Education In China(I).*(online).(http:// [www.Vocati-onal](http://www.Vocational)EducationIn China(I).htm), 27 December 2012.

Cheung, E. 1996.*Higher vocational education in China in response to the changing needs of the labor market beyond 2000*. Industry and Higher Education

Dai, S. 1991. *The development of higher vocational and technical education in China*. Chinese Education

Kahyarara, Godius and Francis Teal. 2008. *The Returns to Vocational Training and Academic Education: Evidence from Tanzania*. World Development.

KRIVET.2008*.Pre-employmentVocational Education and Training in Korea*. Mimeo.

MoE. 2006. *Vocational education in China*.(online). (http:// [www.china.org.cn.htm](http://www.china.org.cn.htm)), 14 January 2013]

Quosdorf, Frank.2010. *China defines road map for becoming a learning society by 2020*. (online) (http:// www. China defines road map for becoming a learning society by 2020.htm), 14 January 2013.

Tantri, Erliana. 2010. *Perkembangan dan kekuatan ekonomi china*. (online).(<http://www.isjd.pdii.lipi.go.id/admin/jurnal/113084948_1411-7932.pdf>), 24 January 2013.

The World Bank. 2000. *Vocational Education and Training Reform*.(online)(http://0-elibrary.worldbank.org.lib.bus.umich.edu/content/book/9780195215908),24 January 2013.

Wang, M.L. 2004. *The development of Higher Technical and Vocational Education*. Education Science Press : Beijing

Wu, X. And Ye, Y. 2009. *Technical and vovational education in china*. Hangzhou: Zhejiang University press.

WT/TPR/S/161. 2006. available at: [www.wto.org/english/tratop\_e/tpr\_e/s161-1\_e.doc.(online)](http://www.wto.org/english/tratop_e/tpr_e/s161-1_e.doc.(online)).(http://www.wto.Org /english/tratop\_e/tpr\_e/s161-1\_e. doc.),24 january 2013.

Yang, Xiucheng. 2007. *Vocationalizing secondary schooling in an era of globalization: The Chinese experience*. Brigham Young University