

# The Need for Quality Assurance Systems of Training and Education in China to Ensure Competitiveness and Sustainable Socio – Economic Development<sub>(I)</sub>

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## 1 OVERVIEW

This article delineates the link between high quality education and training and the field of national competitiveness theory. In particular, the author's goal here is to develop the reasons why countries increasingly need well trained and motivated human resources. Drawing on Michael Porter's pioneering work on national competitiveness and Christophe Koellreuter's application studies on regional competitiveness, the author highlights the importance of high quality human resources in general and of high quality education and training in particular. In conclusion, suggestions are made to establish a quality assurance systems of education and training in China in order to guarantee high quality levels of learning necessary for sustainable economic development.

## 2 PORTER'S NATIONAL COMPETITIVENESS CLUSTER

Porter(1990)<sup>1</sup> has conducted an extensive comparative research of ten countries and came up with reasons why some nations succeed in some industries but fail in others. According to Porter, the home base plays a critical role in that firms tend to build up competitive advantage in industries for which the local environment is the most dynamic and challenging. He has conceptualised his findings in his analytical "diamond" frame which consists of a) factor conditions(e.g. labour, capital, land), b) demand conditions, c) dynamism of related and supporting industries and d) firm strategy, structure and rivalry. In addition to the four factors, chance(e.g. inventions, war, etc.) and government also plays an important role in supporting a nation's aim of achieving economic success(see Figure 1 below).

Concretely, a successful region according to Porter's Diamond would show the following features namely:

- a) several competing companies belonging to the same regional key industry or industries
- b) a large dynamic and sophisticated internal market(Demand conditions)
- c) suppliers specialised in the activities of the regional key industry/industries
- d) qualified and highly qualified manpower specialised in the activities of the regional key industry/industries; educational and research institutes(Factor conditions) (Borner, Porter, Weder, Enright, 1991)

Porter's original concept consisted only of the four diamond conditions. In later publications, Porter added more factors to his diamond model namely 1) chance and 2) government. Concerning the role of

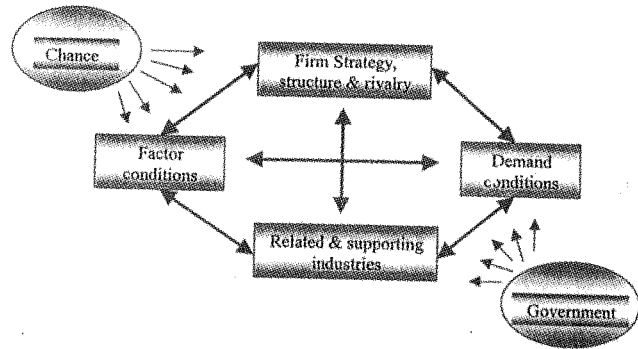


Figure 1 Successful Factors of National Competitiveness (Michael Porter, 1990)

government and chance in Porter's model, Oez(1999)<sup>2</sup> interprets Porter's findings as follows:

"The proper role of the government should be reinforcing the underlying determinants of national advantage rather than trying to create the advantage itself. It is necessary to note that Porter anticipates a more direct but still partial role for the government in the early stage of development of a country since "the tools at its disposal, such as capital, subsidies and temporary protection are most powerful at these stages in a nation's competitive development" (Porter, 1990, p. 671).

The role of government, and by extension the mandate and discretionary power of its civil servants, might hence vary according to the level of economic development of each country. Role adjustments are necessary to help a country move up the developmental ladder as for instance has been the case in Singapore since independence in 1965.

In a recent publication, Porter & Sölvell(1998) offer a more holistic explanation of regional competitiveness. Discussing innovation and sustainable competitive advantage of firms, he states:

"... While some knowledge is embedded in materials, components, products and machinery, other knowledge is embedded in human capital, part of which is tacit(p 447).

Expanding on some aspects of his previous work Porter(1990) further suggests that, "(Furthermore), clusters are characterised by a specific set of tangible(firms, infrastructure), intangible(knowledge, know – how) and institutional(authorities, legal framework) elements. These elements make up a complex web of relations that tie firms, customers, research institutions, schools and local authorities to

# 论确保中国竞争力和经济社会可持续发展 对教育和培训质量保证体系的需要 (I)

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## 1 内容提要

本文阐述了高质量的教育培训与国家竞争力之间的关系。特别地,作者的主要目的是阐释为什么国家对受过良好训练和充满活力的人力资源的需求日益增长的原因。在借鉴 Michael

each other. The interaction between economic, sociocultural, political and institutional actors in a given location triggers learning and enhances the ability of actors to modify their behavior and find new solutions in response to competitive changes” . (p 443) .

With this more complete multifactor and multidisciplinary point of view, Porter joins the existing school of institutional economists and sociologists and political scientists who have been studying the non-economic factors of regional competitiveness for quite some time and who see e.g. the emergence of new industries from the framework of a social system (Van de Ven & Garud, 1989), and from the perspective of social capital theory (Hollingsworth & et al, 1997) .

## 3 APPLICATION OF PORTER'S MODEL TO REGIONAL COMPETITIVENESS

Applying M. Porter's concepts, Koellreuter (1997) has organised comparative studies of regions in order to identify possible key factors which help a region become more competitive and prosperous. Summarising the results of a cross-regional survey covering 20 regions in Europe and North America, Koellreuter (1997) identified 50 factors, which have an influence on a region's economic advantage. The most decisive factors are listed below. (table 1):

Many of the factors listed in Koellreuter's chart fall into the sphere of responsibility of the respective regional government (development of highly skilled labour force, efficient tax system and issuing of permits etc.) . Creating the right mix of efficient economic factor conditions, effective (consistent and predictable) regulatory framework, transparent and efficient administrative services, and high quality social and cultural institutions and services all combined obviously constitutes the right ingredients for a truly competitive region.

The chart is even more significant in light of globalisation. Foreign companies investing in other regions of the world make investment decisions based on most of the factors listed in table 2. In other words, the ability of the respective government to design and sustain an appropriate policy environment is crucial. Equally crucial is the ability of the respective civil servants to apply the rules in a transparent, non-discriminatory manner to local as well as foreign investors. All this results in an increase of challenges to a region's government and civil servants who have to honour the by now increasingly

Porter 在国家竞争力方面的探索性研究和 Christophe Koellreuter 在地区竞争力方面的应用研究成果,作者进一步强调了一般意义上高质量人力资源的重要性和特殊意义上高质量教育和培训的重要性。最后,作者提出了自己的建议:为了确保中国经济

Table 1 Factors with the most decisive influence on comparative advantages of a region with a future

Ranking	Factors
1	Availability of highly skilled labour
2	Price/performance of highly skilled labour
3	Permits (legislation, processing)
4	Corporate tax system
5	Price/performance of skilled labour
6	Availability of skilled labour
7	Work permits of transnational labour
8	Telecommunication
9	Quality of life
10	Access to EEA (EU) market
10	Working Hours
11	Predictability of the politico - legal environment
.	.....
24	Energy supply
25	Price/performance of unskilled labour

global requirements of good government meaning transparency, accessibility, non-discrimination, customer orientation and predictability<sup>3</sup>. Without these requirements, foreign direct investment will go to more promising pastures and local investors might “vote with their feet” and invest elsewhere.

(To be continued)

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- 1 Michael E. Porter, The Competitive Advantage of Nations, New York, The Free Press, 1990.
- 2 Ozlem Oez, The Competitive Advantage of Nations: The Case of Turkey, Ashgate, Aldershot - UK, 1999.
- 3 For more information on the impact of globalisation on leadership competence of civil servants see: Raymond Saner; “La mondialisation et son impact sur la qualification des cadres dans l'administration publique” Revue Internationale des Sciences Administratives, Bruxelles, Vol. 67, Nr 4, pp 739 - 745, 2001.

的可持续发展，应当建立教育和培训质量保证体系。

## 2 Porter 的国家竞争力理论

Porter 通过对 10 个国家的比较研究，得出了为什么一些国家在某些产业领域取得成功而在另外一些产业领域却遭遇失败的原因。按照 Porter 的观点，对于试图建立竞争优势的公司来说，总部基地起着至关重要的作用，地理环境是非常关键和具有挑战性的因素。Porter 在其“钻石”理论分析报告中列出了“钻石”四要素：a)要素条件(即：劳动力，资本，土地)；b)需求条件；c)关联和支撑产业的发展情况；d)公司战略、结构和竞争策略。除了上述四要素外，机遇(如发明，战争等)和政府(如发明，战争等)和政府(如发明，战争等)政府在确保一个国家经济成功中也起着重要作用。(如图 1 所示)

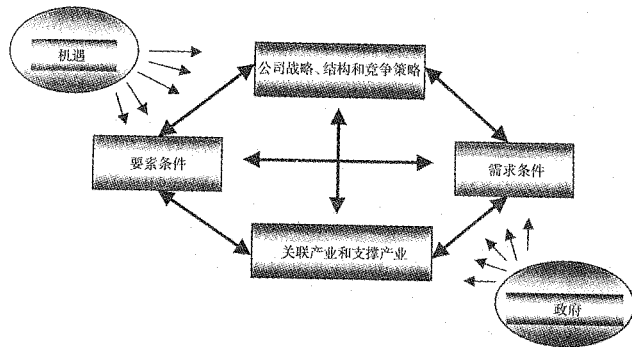


图 1 国家竞争的成功因素

具体讲，按照 Porter 的钻石理论，一个经济上取得成功的地区应当显现如下特点：

a)一个地区的关键产业有若干个竞争企业；b)充满活力却又复杂多变的国内市场(需求条件)；c)地区关键产业有专业性的配套供应商；d)适应关键产业需要的训练有素的劳动者；众多的教育和研究机构。

Porter 最初提出的理论只包括 4 个钻石条件。在后来发表的文章中，Porter 又添加了一些要素：1)机遇；2)政府。关于对政府和机遇作用的认识，Oez 是这样说明的：

“政府的作用应当是充分发挥国家的潜在优势而不是去创造优势。值得注意的是，在经济发展早期政府对经济的直接作用，虽然 Porter 反对这样的直接作用，但事实上这种作用仍然存在，因为在这一阶段政府仍然掌握着诸如资本、财政补贴、短期保护等资源配置的权力”。

随着每个国家经济发展水平的变化，政府的作用也会发生变化。政府作用的调整对帮助一个国家搭上经济发展的快车是非常必要的，新加坡 1965 年独立之后的发展轨迹就充分证明了这一点。

在近期发表的文章中，Porter 和 Solvell 对地区竞争力问题进行了更详尽的论述。关于企业的创新力和可持续竞争优势，他谈到：

“当一些知识被植入材料、部件、产品和机器之中时，另外一些知识却被植入人才资本中，这些过程有时都是默默进行的。”

在其前期研究工作的基础上，Porter 进一步指出：

“我所阐述的是一系列特殊的因素，包括有形因素(企业、基础设施)，无形因素(知识、技能)，公共机构因素(行政当局、法律架构)等。这些因素构成了一个非常复杂的关系网，把企业、客户、研究机构、学校和地方行政当局紧紧联结在一起。经济、社会文化、政治和公共机构之间的相互作用激发人们的学习热情，提高人们应对竞争变革的能力。

## 3 将 Porter 模式应用于地区竞争

应用 Porter 的理论，Koellreuter 开展了地区比较研究以便找到能够帮助一个地区变得更有竞争力和更加繁荣的关键因素。根据其涉及欧洲和北美 20 个地区的跨地区研究，Koellreuter 确定了 50 个对地区经济优势有影响的因素。表 1 列出了一些影响力较大的因素：

表 1 对地区竞争优势有影响的因素排序

排序	因素
1	高技能劳动力资源
2	高技能劳动力的价格和表现
3	许可(法律,过程)
4	税收体制
5	技术工人的价格和表现
6	技术工人资源
7	跨国劳工许可
8	通讯条件
9	生活质量
10	通往欧盟市场的条件
10	工作时间
11	政治法律环境的可预见性
.	.....
24	能源供应
25	普通劳动力的价格和表现

上表中所列的许多因素都进入了地区政府的责任范畴(开发高技能劳动力资源，有效的税收制度和许可制度等)。对于一个富有竞争力的地区而言，创造高效的经济发展条件、稳定和可预见的法律架构、透明高效的行政服务、高质量的社会文化机构和服务也是必不可少的。

图 1 中所列要素对经济全球化更富有意义。对于向别的地区投资的外国公司而言，往往是基于表 1 中所列的要素进行投资决策。换句话说，一个政府是否具备设计和维持一个适宜的政策环境的能力是至关重要的。同样地，一个地区是否具备使外国投资者享受到透明的、非歧视的国民待遇也是至关重要的。所有这些都要求地区政府积极应对挑战、适应全球化的要求，把自己建设成一个透明、可接近、非歧视、顾客导向和可预见性强的政府。如果达不到这些要求，不仅外国投资者不会选择投资，本国投资者也会远走他乡。(待续)

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# The Need for Quality Assurance Systems of Training and Education in China to Ensure Competitiveness and Sustainable Socio - Economic Development ( II )

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## 4 APPLYING THE ANALYSIS OF COMPETITIVENESS TO QUALITY OF HUMAN RESOURCES

Competitiveness of companies in world markets rests on three bases: quality of goods and services offered, their price and delivery times. Developing country industries may have a comparative advantage in price, especially, if they use local raw materials. However, according to Anwar El-Tawil (1996), a lot needs to be done to bring the quality of their products and services to competitive levels. No matter what attractive prices they offer, they won't make the deal if the quality of their products is way below the acceptable level in their target markets, may they be domestic or international markets.

This progression from rudimentary customer demands to more sophisticated demands of today's world markets accelerates once a country opens its borders to international trade. With WTO membership, China will see this trend further speeding up and inevitably leading to an erosion of its traditional comparative advantages (cheap production due to low labour costs). Chinese companies will be under duress to meet international competition both at home and abroad. The need for world class human resources will be required to be a world class economic power.

Cheap labour and production costs will not suffice to guarantee continued economic development. This is even true for Hong Kong, a very advanced economy compared to China. In the words of Donald Tsang, the new Chief Secretary of Hong Kong, Hong Kong needs to find ways to compete in world markets by raising its quality, he stated:

"We are not the Wild West anymore. We must compete on quality"

In developed country markets and increasingly in today's global markets large-scale buyers require from their suppliers, not only a satisfactory quality of the products and services they buy, but also some assurance of the long term consistency of the quality. Anwar El - Tawil concludes in stating that to provide this assurance, suppliers are increasingly required to demonstrate that they operate adequate systems for quality management and quality assurance.

Quality of products and services in turn depends on the availability of well trained and educated human resources. Pointing out that China's annual 8 % economic growth rate could not be achieved without China's access to world markets and without China's ability to make products that can be sold abroad, Lester C. Thurow, former Dean of MIT's Sloan Business School, states:

In today's economic world, countries without educated work

forces simply cannot set sail economically-what ever their desires. This leads to a simple conclusion. If countries cannot organise good educational systems, there is no such thing as catching up economically.

## 5 STRATEGIC IMPORTANCE OF HIGH QUALITY EDUCATION AND TRAINING

Putting this into the context of globalisation and WTO entry of China, it means that the future of China's economic development will rest on the shoulders of its managers, entrepreneurs and labour force. They will succeed or fail to seize the opportunities of better access to foreign markets and at the same time they will be prepared or not to meet foreign competition in China's home markets.

Training and educating China's workers and managers is therefore of strategic importance which in turn means that China's training providers have to be at sufficiently high quality in order to supply high quality training and education. The crucial role of education and training in fostering economic growth, personal and social development, as well as reducing inequality is well recognised. Countries therefore in general seek to ensure that their whole population is well equipped to contribute to, and participate in, the process of social and economic development. Education enables them to face the challenges of technological change and global commercial integration. Through its capacity to provide skills and enable effective participation in the work force, education is crucial to economic adjustment.

Even though China attracts the highest amount of Foreign Direct Investment (FDI) of all developing countries, one needs to take into consideration that most of the foreign investment is directed towards wholly owned foreign companies or joint venture companies. In either case, the foreign companies often install their own managers and management system. Anticipating Chinese companies to become more global and investing abroad, Chinese management and management training and education need to be improved dramatically in order to make Chinese FDI competitive and sustainable as well as in terms of making Chinese companies more performing in light of increased competition by foreign firms entering the Chinese economy.

Although the demands change, education and training providers remain traditional in many developed countries. Of 59 countries ranked on competitiveness by the World Economic Forum, China's position on several key indicators does not appear adequate for the coming challenges of WTO membership. For instance, the following results pertaining to Human Resources, Training and Qualification of Managers need to be taken into account for future remedial action:

**Table 2: China's Competitive Position on key HR indicators (Source: World Economic Forum, Geneva, 1999)**

Dimensions & Questions surveyed	Ranking( 59 countries total; lowest ranking country equal to Nr. 59)
1. Approach to Human Resources (Q: Managers attract, develop and motivate high-quality staff)	China: Nr. 54
2. Staff Training (Q: Staff training is heavily emphasized)	China: Nr. 53
3. Overall Management Quality (Q: Overall, the quality of management is truly world class)	China: Nr. 56
4. Total Quality Management (Q: Total quality management is strictly applied)	China: Nr. 42
5. Management Education (Q: Management education is locally available in first-class business schools)	China: Nr. 58
6. Foreign Experience of Managers (Q: Managers generally speak some foreign language and have good international exposure)	China: Nr. 57

Reflecting on possible remedial steps to improve efficiency and effectiveness of China's educational system, Lichia Yiu (2001) states the following:

Access to equal education at all levels remains one of the critical social issues in China. At the same time, massive expansion at the tertiary level, imperative for sustained economic development, has made it clear that existing resources for education should be better utilised and that private-public partnership in education needs to be explored.

Consequently, the organisational and managerial capacity of the Chinese educational system needs to be strengthened. This will be the next key item on China's reform agenda. In this context, discussion regarding education indicators, learning outcome, quality and congruence between skill acquisition and labour market requirements are bound to gain in importance as well.

Inefficient and ineffective systems of education and in-service training exist in many countries (Saner, Strehl, Yiu, 1997). It would be misleading to look at the education and training sector as if it were a beauty contest. What matters are the results or outputs (skills acquisition, know-how acquisition and increased behavioural competencies of students and trainees), not input figures (number of teachers and schools subsidized). At the final end it is the outcome measures which determine whether or not a given education and training system is effective or ineffective (increase of economic and social development at national level or increase of productivity at enterprise level).

## **6 PROVISION OF HIGHER EDUCATION AND TRAINING SERVICES**

Provisions of needed training and education could come from national or international sources. Countries with low quality education and low quality training services will face increasing competition from foreign service providers. WTO membership also includes agreement to open markets in services. Education is one of the sectors covered by the General Agreement on Services (GATS) of the WTO. Hence, it can be expected that the next WTO Round of Liberalisation of Trade in Goods and Services will also include opening of educational markets

world wide.

International trade in education services has experienced important growth in particular at the tertiary level. This is demonstrated by the increasing number of students going abroad for study, exchanges and linkages among faculties and researchers, increased international marketing of curricula and academic programmes, the establishment of "branch campuses", and development of international mechanism for educational co-operation between academic institutions in different countries.

The value of annual trade in 1999 in higher education services has been estimated at 30 billion US \$ reaching 50 % of trade in financial services estimated at 59.3 billion US \$. The estimates of trade in ES would be higher if estimates were available for the total trade in ES. Higher education is only one of five subsectors of ES (Saner & Fasel, 2003).

High quality training and education are needed for sustained economic development of countries whether they are developed or developing. Switzerland, a developed and industrialised country, has recently embarked on a total audit of its higher educational system particularly of its Technology Institutes but also now including its main universities. The goal of the audit is to analyse current quality levels of education, measure the current state with expected future needs and to improve the current educational sector accordingly. Swiss and foreign experts team up to form so called Peer Review teams who visit all the higher educational institutions of Switzerland in order to assess the quality level of their teaching services. This author has been part of such a Peer Review team and found the auditing exercise a most fruitful, courageous and stimulating step towards a total overall reform of the Swiss educational system.

Concerning China's current challenges in regard to education and training, substantial financial and human resources need to be invested over the next 10-20 years. Taking into account the scarcity of financial resources and technical know-how, it is of paramount importance to guarantee sufficient quality control of education and training. Different quality methods and instruments exist in the field of education and the same is true for enterprises. Complementary steps need to be taken to improve China's formal educational system and at the same time, on a more immediate level, steps need to be undertaken to help China's enterprises improve their current quality level of in-service training. In fact, one of the most viable quality assurance instruments is the ISO 10015 - Standard for Education and Training-available for application since March 2000 for schools, universities and enterprises alike. Installing ISO 10015 Quality assurance system within the enterprises would offer the needed quality measures to ensure higher return on investment in human resource development and in-service training.

## **7 CONCLUSION**

Globalisation and WTO membership will speed up competition for China, abroad and at home. The challenges of competition have to be met by today and tomorrow's managers and workers. WTO members like Singapore and South Korea have rapidly replaced illiterate work forces with well-educated work forces. A similar path is inevitable for China. The strategic question is how to support the rapid build up of high quality education and training in order to guarantee long-term success of China's membership in the world economy. In light of limited financial resources, quality assurance of training and education has increasingly become a task of strategic importance for China. The same is true for all the other countries that want to become or remain successful partners and players in the world economy.

# 论确保中国竞争力和经济社会可持续发展 对教育和培训质量保证体系的需要(II)

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## 4 将竞争分析理论应用于人力资源质量

企业在世界市场上的竞争取决于3个方面:产品质量、服务质量、价格和送货时间。发展中国家的产业往往有价格优势,特别是当它们运用本地原材料生产产品时,这一优势更为明显。但是,正如 Anwar El. - Tawil 所言,要使它们的产品和服务质量达到适应竞争要求的水平,还需要做大量工作。不管你的产品价格再低,如果你的产品质量达不到目标市场(可能是国内市场或国际市场)的要求,那么你最终都做不成一笔买卖。

一旦一个国家向世界市场敞开了大门,这种从初级顾客需求到复杂的世界市场需求的转变就会加速。在加入 WTO 之后,中国将面临这一转变的加速,并不可避免地遭遇传统竞争优势(因低劳动力成本导致的低价格)的削弱。中国企业将被迫面对来自国际和国内的竞争。中国要想成为世界经济强国,就必须拥有世界级的人力资源。

廉价劳动力和廉价产品不足以支撑经济的持续发展,即使是与中国经济相比较发达的香港也是这样。按照香港首席秘书 Donald Tsang 的话说,香港需要通过提升质量才能在世界市场上争得一席之地。他说:

“我们不再是西北风。我们必须依靠质量去竞争。”

在发达国家的市场上和在日益发展的全球市场上,大规模的买主不仅要求供应商提供高质量的产品和服务,而且要求提供长期的质量保证。Anwar El. - Tawil 进一步指出,越来越多的买主要求供应商提供它们完善的质量管理和保证体系的证明。

高质量的质量和服务取决于受过良好培训和教育的人力资源。麻省理工学院 Sloan 商学院前院长 Lester C. Thurow 指出,如果中国不融入世界市场,或者不具备生产能够为海外市场接受的产品能力,那么要实现 8% 的经济增长速度是非常困难的。Lester C.

Thurow 讲道:

在当今经济世界,缺乏良好教育背景劳动力的国家很难启动经济之航——不管它们有多么强烈的愿望。这就得出了一个简单的结论:如果一个国家建立不起良好的教育体系,那么就谈不上经济上赶超别国这样的事情。

## 5 高质量教育和培训的战略重要性

把这一点和经济全球化及中国加入 WTO 联系起来,就意味着中国未来的经济发展依赖于经理人、企业家和劳动力。他们在融入国际市场方面或者抓住机遇,或者错失良机。与此同时,他们要么积极应对国内市场上的国际竞争,要么对此置之不理。

因此,培训和教育中国的劳动力和经理人具有战略重要性,这就意味着中国的培训机构必须有足够高的质量以便能够提供高质量的教育和培训。教育和培训的关键作用在于促进经济增长,促进人与社会进步,同时也能有效地减少不平等现象。因此,一般国家都会致力于使全体国民通过良好的教育能够参与到社会经济发展的进程中来,并能为此做出贡献。教育使得人们能够应对技术变革和商业一体化的挑战。通过提供高技能的劳动力和促进劳动力的有效参与,教育在经济调整方面也发挥着关键性作用。

尽管中国是吸引外国直接投资(FDI)最多的发展中国家,但是我们不能不考虑外国投资者往往倾向于建立独资公司或合资公司。不管哪种形式,外国公司通常设立自己的经理人和管理体系。随着中国企业国际化水平的加快和对外投资的增多,中国的管理体制和针对管理的教育与培训需要做大的改进,以便使中国企业的对外直接投资更富竞争力、更具可持续发展力,同时也使中国企业能够在外资大举进攻的国内市场上有更好的表现。

尽管不断地要求变革,但是许多发展中国家的教育和培训机构仍然是一副老面孔。世界经济论坛对

59个国家的竞争力排序,中国的排位与其WTO成员国的地位很不相称。例如,下表列出的与人力资源相关的问题方面,中国的经理人培训和经理人资格认证就需要未来采取切实有效的措施加以完善:

表2 中国在人力资源关键要素方面的竞争力排位

项 目	排位(共59个国家)
1.人力资源状况(对经理人的吸引力,高素质员工的开发)	中国,第54位
2.员工培训	中国,第53位
3.总体管理质量	中国,第56位
4.总体质量管理	中国,第42位
5.管理教育	中国,第58位
6.经理人从事外向型经营的经验	中国,第57位

关于改进中国教育体制效率和效果方面可能采取的补救性措施,Lichia Yiu提出了以下观点:

让所有人都享有平等的教育机会仍然是中国面临的关键社会问题之一。与此同时,第三代队伍的大规模扩展和对可持续发展的迫切愿望,已经清楚地表明必须更有效地利用中国现有的教育资源并积极探索发展公私合作教育。

与此同时,中国教育体系的组织能力和管理能力也需要进一步加强,这将是中国的改革的又一个重要议程。在这方面,讨论主要涉及到教育的指导思想、教育成果、教育质量以及所培训的技能和劳动力市场需求是否相一致,这些问题必须引起足够的重视。

许多国家仍存在着低效率、低效益的教育体系和兵役式的培训体系。这很容易误导人们把教育和培训看成一种漂亮的竞赛。教育和培训的关键应当是教育和培训的成果(获得的专业技能、专业知识和应对竞争的能力),而不是几个数字(老师和学生的数量)。而且,判断一个教育和培训体系是否有效,最终要看实际的教育成果(国家经济社会发展水平的增长和企业生产力水平的增长)。

## 6 高级教育和培训服务资源

开展教育和培训可以利用国际国内两种资源。教育和培训质量较低的国家将会面临来自国外服务机构的日趋激烈的竞争。WTO成员还要履行开放服务市场的承诺。教育是WTO的关贸总协定所包含的一个服务领域。因此,下一轮关于货物和服务自由贸易的谈判将会涉及向世界开放教育市场。

教育服务国际贸易在第三世界国家有了很重要的发展。这主要表现在:大量的学生去国外留学,教师

和研究人员的交流和联系日益增多,课程和学术计划的国际交流日益广阔,众多“分校”的创立,不同国家之间学术机构之间教育合作的国际机制日臻完善。

1999年度,高等教育服务的年贸易额估计达300亿美元,占到金融服务贸易额(估计为593亿美元)的50%。如果教育服务贸易的情况掌握的更全面的话,这一数值估计还要更高。高等教育只是教育服务的5个项目之一。

无论是发展中国家还是发达国家,实现国家经济的可持续发展都要求有高质量的教育和培训。瑞士是一个发达的工业化国家,最近对全国的高等教育系统特别是工科教育,后来还包括对主要的大学开展综合考评。考评的主要目的是分析当今教育的质量水平,按照未来的要求衡量教育的现状,提出改进教育质量的措施。由本国和外国专家组成的高级评估团考察了瑞士的所有高等教育机构以便评估他们的教育服务质量。作者本人也是评估团的成员,通过亲身参加这一活动,深刻体会到这是推动瑞士教育体制改革进程中所迈出的极其富有成果、富有勇气和令人振奋的一步。

联系到中国教育和培训所面临的现实挑战,在未来的10年~20年内需要投入实质性的财政和人力资源。考虑到中国财政资源和技术专才的短缺,确保对教育和培训充分有效的质量控制是非常重要的。在教育领域存在着不同的质量控制方法和工具,在企业亦是如此。需要采取一系列步骤去改进中国原有的教育体制,与此同时,在更为直接的层面上,需要采取切实有效的措施帮助中国企业改进对员工的培训质量。事实上,最可行的保证工具是ISO 10015——教育和培训的标准——从2000年开始就应用于学校、大学和企业的质量控制。企业应用ISO 10015质量保证体系之后,有效的质量保证体系可以确保企业在人力资源开发和员工培训方面投资的更高回报。

## 7 结语

全球化和加入WTO将会加速中国在国内外的竞争。无论是经理还是员工都必须面对竞争带来的挑战。象新加坡和韩国这样的WTO成员国在很短的时间内就实现了劳动力从文盲到有着良好的教育背景的转变。中国也不可避免地要走这样的道路。面临的战略性问题是如何支撑高质量教育和培训体系的建立以确保中国在世界经济体系中的长期成功。基于中国的财力还相对较弱,确保教育和培训的质量已日益成为中国的一项具有战略意义的任务。对那些希望能够在世界经济体系中成为或保持成功的伙伴和参与者的国家而言,这个问题同样非常重要。

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