Chapter III

VOCATIONAL EDUCATION IN DEVELOPED AND DEVELOPING COUNTRIES.

It is perceived that if unemployment increases significantly, the labour supply shows rapid growth and that too in the present era of globalization, then the countries are left with no alternative but to make their labour force more competitive. To become competitive the demand for effective vocational training is the long felt need. The present chapter tries to make an attempt to trace the existing vocational training system in various countries.

SELECTION OF THE COUNTRIES

The sample countries can be classified into three groups according to their labour market characteristics. The first group has high labour force growth and consequently high unemployment and underemployment rates. These are relatively low growth developing countries in Africa and the Middle East, represented here by South Africa, Tanzania, Zambia, Egypt, Jordan, and the West Bank and Gaza. The second group has high labour force and employment growth and low unemployment rates these are the emerging market counties of East Asia and Latin America, represented here by China, Indonesia, Malaysians, Korea, Chile and Mexico. The third group consists of those countries with low labour force growth, low employment growth and high unemployment rates. These are countries that are in transition to a market economy, represented here by Hungary, Poland, the Czech Republic, the Russian Federation and Kazakhstan.

Part I: - Transition Economies

Hungary, Poland, the Czech Republic, the Russian Federation and Kazakhstan.

Vocational education and training systems in countries in transition to a market economy face a double challenge. First, they must transform themselves: developed to serve a centrally planned economy and geared toward technologically backward industrial production, they must become compatible with an economy based on market
principles that incorporates a greater variety of industrial production and services second, they must contribute to the health of that market based economy.

In Hungary the duration of primary education has increased, and the age of entry to vocational education has been postponed. The relative roles of the state and the private sector in providing training outside the school system have changed.

In Poland, the amount of public funds spent for training has remained low; the people involved in labour market training are still few in number. The main reason is that few vacancies can be filled on the basis of retraining. Vocational education has traditionally been organised along with sectoral lines, with schools focusing on a single sector and switching, form one vocation to another only with difficulty. The industrial and vocational education structures have proven to be a major barrier to industrial and regional development during the transition. But Poland is the only formerly socialist country that has maintained a successful traditional apprenticeship system in the handicraft sector.

Vocational and technical education in the Czech Republic has been made more general. No longer is it a dead-end. Financing rules and regulations have been changed so there private and public schools benefits from the same financial arrangements and face the same financial incentives for cost sharing with students and firms. The Czech Republic has relied more in restricting labour supply by delaying the entry of the youth into the labour market and by expanding the secondary education system and less on propping up labour demand through interventions. The countries of the former Soviet Union face these challenges under more uncertain political and economic conditions, and under more acute financial constraints. Most educational institutions in the Russian Federation continue to cling to the old ways. One major change has been to allow private institutions. But private training provision has been slow to grow, in part because of the attitude accrediting authorities toward private schools, which they view as a threat to the public system. Many vocational schools continue to be aligned with specific enterprises, but apart from this there is little involvement by employers. The curriculum is developed at the center, either in ministries or methodological institutes. The main issue facing policy makers is how to make the system more responsive to changes in the labour market. Financial constraints mean that new alternative must be found to finance the
needed improvements. However efforts to share the costs of vocational training with the beneficiaries, particularly the trainees themselves, are limited by legislation: initial vocational training is by law free to the participants. Russia has not yet begun to address the fundamental question of how to reform its Vocational Education Training system.

In other FSU countries, such as Kazakhstan, the Vocational Education Training system continues to operate in ways suited to a command economy. The Government has not accorded vocational education and training a high priority.

Part II: - High-Growth Economies
China, Indonesia, Malaysia, the Republic of Korea, Chili and Mexico.

China is facing the dual challenge of meeting the demand for skilled workers in high growth coastal areas while downsizing its bloated public enterprises. Korea's experience shows the benefits of an evaluative approach to Vocational Education Training policy. The country has been able to pursue different strategies to encourage investment in enterprise based training by firms. Malaysia has had success through a well run buy grant scheme that has constantly been refined, its experience shows that firms value the products of private institutions much more than the products of public vocational schools. The Indonesia study illustrates another important lesson by not discouraging private provision of training, poor countries can ensure that a fast growing economics demands for skilled workers can be met even when the public Vocational Education Training sector is not operating efficiently. In Chile the vocational education and training is encouraged at secondary postsecondary levels. Mexico a country that has experienced both high growth and severe recessions where high labour force growth, low employment growth and high unemployment and underemployment, especially in the informal sector, is facing the major challenges of reform in the Vocational Education and Training.

Part III: - Low Growth Economies
South Africa, Tanzania, Zambia, the Arab Republic of Egypt, Jordan and the West bank and Gaza.
South Africa, Tanzania, Zambia, the Arab Republic of Egypt, Jordan and the West bank and Gaza strips have high labour-force growth low employment growth and high underemployment and underemployment rates, especially in the informal sector. Two third of the South African labour force is employed in the formal sector, industrial training boards collect and disburse training levies and organize training in companies. There in no structured system of training in place to meet the needs of informal sector workers. Vocational Education & Training in Tanzania has been played by the inefficient use of resources, in equitable educational opportunities poor labour market linkages, and a lack of coordination between the donor’s and the government the qualities of training remains poor. Student who enter secondary schools or the training institution are mainly from upper income households. Although the government is still a major employer, the private formal sector has grown relatively rapidly during the past decade. Public Training Institutions have done poorly in catering to this new client, or to the large informal sector.

Zambia’s vocational education and training system faces similar constraints relating to its purpose, clientele management, and product quality. Current training efforts reach less than three percent of those entering the labour market every year and programs are focused on providing youth with skills for formal sector jobs that are almost non-existent. The most important and promising measures are efforts to strengthen non formal training by making easier and financially attractive for private providers and micro entrepreneur to train informal sector workers.

In Egypt the main problems seem to be an over supply of technical and vocational skills to a sluggish economy and fundamental mismatch between the needs of a largely informal economy and the VET system, which is designed to meet relatively former needs.

In the former centrally planned system Vocational and Technical graduates were guaranteed employment. Now the employment cannot be guaranteed.

Despite lacking natural resources and being constrained by a small industrial base, Jordan has development good educational and training programs. Its workers have achieved high education and skill levels and they have proved to be the most successful export of the economy.
TWO SPECIAL CASE STUDIES

During the past two-three decades Australia and Germany have strengthened their roles as international advocates of reform of vocational education and training Vocational Education Training (VET). This part examines how their experiences can provide useful lessons for low and middle-income countries.

Vocational Education and Training policies in Australia and Germany have increased the links between education and employment, a challenge preoccupying policymakers in all countries. In countries with rapidly growing economies, this preoccupation stems from the concern that demands for skilled workers will outstrip supply. In countries where economic growth is slow, the concern may arise because of growing unemployment among youth. In both cases the result may be the same, efforts by policymakers to vocationalize the curriculum, or involve employers in schooling decisions, or increase pre-employment training or create incentives for employers to participate in apprenticeships training. These actions have been the hallmark of Australia’s reforms and Germany’s dual system in the past two, three decades.

Few countries have pursued reform of vocational education and training as persistently as Australia. The Australia experience highlights the importance of basic reform on sound institution.

With the establishment of the Australian National Training Authority, the government sought to engage employers and the unions not as advisors, but as integral parts of the management of the VET system. Countries that have depended on the public sector will find it difficult to adopt such an approach, but it is necessary if they are to get full value for their VET investments. Australia’s experience also demonstrates how difficult it is to forge relevant links between the VET system and the labour market. The solution in Australia was the establishment of a single national ministry encompassing employment, education, and training. By joining all the players in one institution, Australia was able to resolve competing priorities more effectively. For market forces to work however, countries must do more that create an institutional framework that involves industry. Financial mechanisms that support the central role of employers must be put in place as well. In Germany the organization and control of vocational education and training are left to the body that pays for the instruction: State and local governments.
pays for and control relatively general skills that are acquired in the school, and employers pay for and determine job specific training acquired in the work place. This is so called dual system.

Australia

By any measure Australia is wealthy. Earlier this century that wealth was based on agricultural products, especially the wool industry the country has always had a reasonably significant manufacturing sector, which it built up during the 1950s and 1960s largely behind tariff walls. Following the oil crisis in the mid 1970’s growth in the gross domestic gross domestic product fell and unemployment, which had rarely surpassed two percent, rose to more than six percent. This problem persisted. Unemployment rates in 1977 reached more that, eight percent.

Table 3.1 shows the growths of employment in industry between 1976 and 1994, and the Australian government’s assessment in 1995 of its prospects in the immediate future. Employment in agriculture, utilities (gas electricity water), transport and storage declined, and this decline may well continue. Manufacturing employment remained more or less stable in absolute numbers, although its share declined given the overall increase in the level of employment. The changes have been associated with the decline in traditional job opportunities for male blue collar full time workers. New jobs have been created largely in the services sector.
### Table 3.1

Average Annual Growth of Industrial Employment, Selected (Years, 1976-2005 percent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Agriculture</td>
<td>0.8</td>
<td>-0.4</td>
<td>2.5</td>
</tr>
<tr>
<td>2.</td>
<td>Mining</td>
<td>2.1</td>
<td>-1.1</td>
<td>0.0</td>
</tr>
<tr>
<td>3.</td>
<td>Manufacturing</td>
<td>-1.2</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td>4.</td>
<td>Electricity, Gas &amp; water</td>
<td>3.1</td>
<td>-4.8</td>
<td>-2.3</td>
</tr>
<tr>
<td>5.</td>
<td>Construction</td>
<td>0.3</td>
<td>2.0</td>
<td>2.4</td>
</tr>
<tr>
<td>6.</td>
<td>Whole seller &amp; Retail</td>
<td>2.0</td>
<td>N.A</td>
<td>N.A</td>
</tr>
<tr>
<td>7.</td>
<td>Whole sale</td>
<td>N.A</td>
<td>1.7</td>
<td>4.0</td>
</tr>
<tr>
<td>8.</td>
<td>Retail</td>
<td>N.A</td>
<td>2.4</td>
<td>3.2</td>
</tr>
<tr>
<td>9.</td>
<td>Transport &amp; Storage</td>
<td>2.2</td>
<td>-0.5</td>
<td>-0.4</td>
</tr>
<tr>
<td>10.</td>
<td>Communication</td>
<td>2.4</td>
<td>-1.5</td>
<td>3.3</td>
</tr>
<tr>
<td>11.</td>
<td>Financial &amp; Business Services</td>
<td>4.5</td>
<td>N.A</td>
<td>N.A</td>
</tr>
<tr>
<td>12.</td>
<td>Finance</td>
<td>N.A</td>
<td>0.4</td>
<td>3.7</td>
</tr>
<tr>
<td>13.</td>
<td>Property</td>
<td>N.A</td>
<td>5.4</td>
<td>1.2</td>
</tr>
<tr>
<td>14.</td>
<td>Public Administration</td>
<td>1.7</td>
<td>1.1</td>
<td>2.7</td>
</tr>
<tr>
<td>15.</td>
<td>Community Services</td>
<td>3.7</td>
<td>N.A</td>
<td>N.A</td>
</tr>
<tr>
<td>16.</td>
<td>Education</td>
<td>N.A</td>
<td>2.1</td>
<td>2.6</td>
</tr>
<tr>
<td>17.</td>
<td>Health</td>
<td>N.A</td>
<td>3.1</td>
<td>2.7</td>
</tr>
<tr>
<td>18.</td>
<td>Recreation, personal &amp; other services</td>
<td>2.2</td>
<td>N.A</td>
<td>N.A</td>
</tr>
<tr>
<td>19.</td>
<td>Recreation</td>
<td>N.A</td>
<td>4.6</td>
<td>0.6</td>
</tr>
<tr>
<td>20.</td>
<td>Personal Services</td>
<td>N.A</td>
<td>3.2</td>
<td>2.9</td>
</tr>
<tr>
<td>21.</td>
<td>Accommodation &amp; Restaurant</td>
<td>N.A</td>
<td>5.3</td>
<td>4.0</td>
</tr>
</tbody>
</table>

**Total Employments**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1.6</td>
<td>1.7</td>
<td>2.2</td>
</tr>
</tbody>
</table>

N.A Not Available

It was found that at Australia the self-employment growth rose to about 50 percent during the period 1978-1995. Here the vocational education Training system is firmly embedded in two institutional frame works- the government frame work and the industrial relations frame works.

*The Government Frame work:*

Australia is a federation of states the constitutional responsibility for education and training is vested in state Government. The central element of VET has long been an apprenticeships system. State Governments- provide formal training in technical institute and employer provide on- the- job training. This arrangement typifies what has become widely known as a dual system, and it has been confined to traditional crafts in sector, such as manufacturing, agriculture, and construction.

*The Industries Relation Framework:*

Australia's federal system of Government may not be unique, its industrial relation frame work is. That frame work is legalistic and adversarial. The counts formalize industrial agreement between the parties through so called industrial awards, setting wages and conditions for employment. The apprenticeship system was built into this legal frame work from the outset. Education planners perceived it as a way to train young people, and adult apprenticeships were not permitted. Despite their interest in establishing adult apprenticeships; employers for decades were unable to influence the trade unions in this regard. Workers, who developed their skills on the job, thereby effectively reaching skilled occupation status, were unable to convert this ability into a formal qualification, which might have considerably enhanced then market ability.

Skill shortages were endemic in Australia for almost 30 years prior to the 1970s. Obtaining agreements about the duration of training, typically four years proved difficult even as technological advances changed the occupations covered by the apprenticeships system, and there by the kind of training required.
Compulsory and Post-Compulsory Vocational Education:

Until 1960s, students interested in apprenticeships or less skilled occupation were usually directed toward what could be described as technical schools. The selection of students for various secondary school streams was based on academic achievements.

But with continuing rise in unemployment among young people after 1974, many became concerned about school leaver's lack of work readiness. To overcome this problem, the federal and state government implemented work experience scheme, introduced curriculum changers and allowed some students to attend school and simultaneously participate in the post compulsory vocational system. In each case the intent was to respond to industry criticisms of the basic lack of skills among many young people, especially among those who left school as soon as they were allowed to do so.

At the same time, the number of students who left school early began to decline dramatically. Between 1967 and 1982, retention of students to year 12 increased from about 33 percent which was low compared with other countries of the Organization for Economic Co-operation and Development (OECD). These effects then combined to bring about substantial increases. First, the federal government embarked on a series of income support reforms for young people still in school and older than 15. Eligibility for these benefits depended on parent's income. This reform reduced the cost of education for many young people who otherwise would have probably dropped out of school. Second, public awareness of the returns to education increased sharply. The public became aware that unemployment among young people was concentrated in early school leavers. Third, employers were able to leave their selection criteria for entry-level occupations, not only for apprenticeships but for occupation (for instance in the repair industry) that had become major sources of employment for school leavers. Increasingly those with education beyond the school certificate took up apprenticeships. The end result was a steady increase in school retention rates. By 1986 retention rates had risen to 50 percent and by 1992 they were over 75 percent, more than doubling in less than a decade. This rise had a far greater impact on reducing the absolute levels of teenage unemployment than had concurrent labour market interventions on their behalf.

Beside this during 1975 and 1984 the major vehicle for post compulsory vocational education was the system of technical and further education (TAFE) colleges.
The second major reform was the establishment of the Australian National Training Authority (ANTA). Till 1998, the Government bore the cost of training but after that, government made its rule to provide the financing for the negotiated agreement up to a given maximum, beyond that the employers have fear the cost themselves. The case studies have demonstrated that investment in V.E. should not be made without greatest certainty about future labour market demand.

Germany

Germany's approach to vocational education and training (VET)-the so call dual system introduced in 1969-strengthen the link between education and employment. The system is dual because vocational education and occupational training are provided simultaneously (that is during a single programme of work & study) to participants by schools & employers respectively. The system is believed to be an effective strategy for keeping youth unemployment low and ensuring an adequate supply of skilled workers.

Imbalances between the demand and supply of skilled worker have been experience at various times by all countries and they have been addressed in different ways depending upon the countries education related and labour-related institutions. Japan, for example, has eschewed vocational education in favor of formal life long in service training. The United State has resisted vocationalizing secondary education. Instead, it has relied largely, on a process if matching job's with job seekers through job changes and subsequent informal on the job training of workers with relatively high education levels. Like Germany, Japan and United State have maintained relatively low unemployment rates among youth and have ensured a steady supply of skilled workers. Germany with well defined relations between central and state governments and a labour market with powerful unions, has taken a different approach.

In Germany, until recently, relatively few labour force entrants had received a post secondary education. But nearly three-fourth of all new hires in Germany get formal training, mainly through firm-sponsored apprenticeships in conjunction with vocational education provided by the state. This approach has strong intuitive appeal. Employers provide occupation specific skills to workers, sharing those costs with them through lower wages during the apprenticeships period, and taxpayers finance more general but
still work relevant vocational education. It is hardly surprising that many developing
countries want such a system.

The German apprenticeship is a joint undertaking between the public and private
sector. Theoretical aspects of training are provided in publicly run and financed
vocational secondary schools, and practical aspects in firms that provide and finance
apprenticeships. The program, usually lasts about three years for commercial trades-
longer for technical occupations. Apprentices spend one or two days each week in
vocational schools and the remainder in the firm. In small firms, apprentices acquire
skills through learning by doing; in large firms training is often in specialized centers
(Bosch 1993).

The role of the federal government:

After the end of World War II, the Lander-state governments were given
responsibility for vocational education and training. The vocational training Act of 1969
formalized this control. But the vocational training law (Berufs bildungsgesetz) governs
only enterprise-based training not school-based education, the other component of the
dual system of VET. A formal agreement between the federal government and the state
ministries of education and cultural affairs lays out the procedures for coordinating
education and training. The federal institute for vocational training (BIBB) can establish
to reform training regulations. It draws up the rules to implement change in training laws,
standards or curricula after they have been deliberated upon by the employer’s
associations, unions and the state government. It also monitors training costs and
effectiveness through periodic nation-wide surveys, and it finances federal government
initiatives to increase vocational training.

The Role of State and local Government:

Vocational schooling can be either full time or cooperative; both types of
schooling are run by state ministries of education and culture. The state ministries of
education develop draft curricula are supposed to reflect the opinions of employers, but
on practice curriculum development in vocational school is done without the active
participation of employers. Vocational schools are financed by municipalities or district
government, which provides equipment and material costs, and the states, which provide personnel costs. The state minister of economics and other “Competent ministers” (such as agriculture, Justice and industry) play a more important role than the minister of education in regulating in-firm vocational training.

After the IIInd world war a pluralist system ensured non government forces a strong influence is important areas of government policy, including VET. Control of vocational training is decentralized among 480 regional chambers. Responsibility of supervision lies with these chambers (employers associations). With in them vocational training committees are formed. These bodies are passively regulated by the relevant state ministers. These committees include labour union representatives and vocational education teachers (who only have an advisory role). Chambers also set up exam committees – consisting employers, employees and instructor- for each occupation.