

A Comparative Study on Vocational Training Structure of Pakistan with British and German Model

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Abstract

This was a theoretical paper aimed to compare the vocational training structure of Pakistan with British & German model and present a model for vocational training. The data collected through document analysis and, interview and survey. It was found that the dual system of vocational training did not work well in Pakistan as compared to UK and Germany. The paper recommended a model for vocational training in Pakistan. It was also recommended that national occupational skills standards may be developed.

Keywords: Vocational training, vocational training model, technical education

Introduction

Vocational training is the training for a specific vocation in industry or agriculture or trade whereas vocational education is designed to advance individuals' general proficiency, based in manual or practical activities, especially in relation to their present or future occupations. The term does not normally include training for the professions. It is sometimes referred to as *technical education*, as the learner directly develops expertise in a particular group of techniques or technology. Until the end of the twentieth century, vocational education focused on specific trades such as for example, an automobile mechanic or welder, and was therefore associated with the activities of lower social classes. As a consequence, it attracted a level of stigma. However, as the labor market becomes more specialized and economies demand higher levels of skill, governments and businesses are increasingly investing in the future of vocational education through publicly funded training organizations and subsidized apprenticeship or traineeship initiatives for businesses. Vocational education has diversified over the 20th century and now exists in industries such as retail, tourism, information technology, services and cosmetics, as well as in the traditional crafts and cottage industries. Now a brief description of vocational system of three countries is presented below:

i. Great Britain Educational & the Vocational Training System

In Great Britain attendance at school is compulsory for children aged between 5 and 16. The publicly financed school system for this age range is organized in two or three tiers:

The two-tier system comprises primary schools (age 5-11), sometimes subdivided into infant (5-7) and junior (7-11) school, and selective or nonselective secondary schools (ages 11 to 16 or 18). The three-tier system includes middle schools, and is only to be found in England, where it provides for less than 15% of all pupils. Since 1965, most local education authorities have been reorganizing their secondary school systems, abolishing the selection test at age 11 (the "11-Plus") and introducing nonselective secondary schools (comprehensive school), catering for all abilities. The great majority of Children aged 5-16 are educated in comprehensive schools, whereas the Technical Schools is of very minor importance, because it serves only about 2% of the pupils at this level. This level (age 16) normally ends with the general certificate of education (GCE) at advanced (A) level, which entitles to continue studies at college / university level (Wheatley, 1976). Those who do not want to go on to the 'A' level directly, may transfer, to a separate institution such as a sixth-form college, tertiary college, college of further education, or technical college.

The last three of these are essentially similar, cater for the ages over 16, and offer a wide range of vocational and academic courses, full-time and part-time. The ordinary national diploma (OND) and ordinary national certificate (ONC), which are equivalent to the 'A' level, can be reached and entitle for education at college and university level. The apprenticeship training takes place in the factories and technical colleges (dual system) and is controlled by the industries. The training lasts up to five years, the schemes do not provide for a final examination or test or certificate of competence. The apprentice who "serves his time" is accepted as craftsman by his employer and trade union. All vocational education schemes related to craft apprenticeship lead to final examinations set at the level of the competent craftsman e.g. "City and Guilds of London Institute" (CGLI). These examinations add to the status of the apprentice, but do not have any bearing on the apprentices' graduation to craftsman status on completion of the appropriate period of time. The apprenticeship training, which approx. 500,000 apprentices, is an important factor within the vocational training.

ii. Republic of Germany Educational & Vocation Training System

In republic of Germany, pre-school or nursery-school facilities are, for most parts, sponsored and run by churches, private welfare agencies, and other private groups. They are capable of handing some 80% of the relevant age group. In general, the primary level consists of the first four grades. Which are followed by a two-year orientation stage. The secondary level consists essentially of three types of school. Firstly the "Hauptschule" (similar to the former British secondary-modern school), which has 9, in some cases, 10 grades, and is attended by about 36% of the relevant age group. The majority of its graduates go to part-time vocational schools and apprenticeships. Secondly, the "Realschule" which has 10 grades and is attended by about 26% of the secondary-school age group offers an academically more demanding curriculum. Its graduates enter apprenticeships or full time vocational schools which prospect of later continuing in polytechnic colleges.

Thirdly, there is the "Gymnasium", pre-dominantly academic in orientation. It is attended by about 27% of the lower-secondary-school group, of which some 80% obtain the certificate of graduation entitling them to continue their studies at university-level institutions or polytechnic colleges (Porter & Georgeanne, 1986). The outstanding feature of the dual system of initial vocational training is the comparatively close link between apprenticeships, lasting usually three years and offered by enterprises, and part-time vocational training of a more general and theoretical kind offered by state-run schools. This system, although often charged with being conditioned by economic considerations, has proved to be a quite effective and smoothly working link between general education, on the one hand, and gainful employment, on the other, bridging the partial contradiction between them. (In 1948 there were approx. 1.8 million apprentices in Germany, representing 66% of the age cohort 16 – 10).

Pakistan Educational & Vocational Training System

The formal educational system has a multistage structure, of which the first is the primary stage which lasts five years and enrolls 5 to 9 year-olds. The primary system is followed by a three-year middle stage, a two-year secondary stage and a further two-year higher secondary stage, the so-called intermediate stage. Graduation entitles one to continue studies at college and or university level.

According to a source there are more than two lakh educational institutions in Pakistan at the elementary, secondary, upper secondary, and higher education levels. The education is organized as follows (Gottschleben, 1988):

- Primary stage (5 years);
- Middle stage (3 years);
- Lower secondary stage (2 years); and
- Upper secondary stage (2 years).

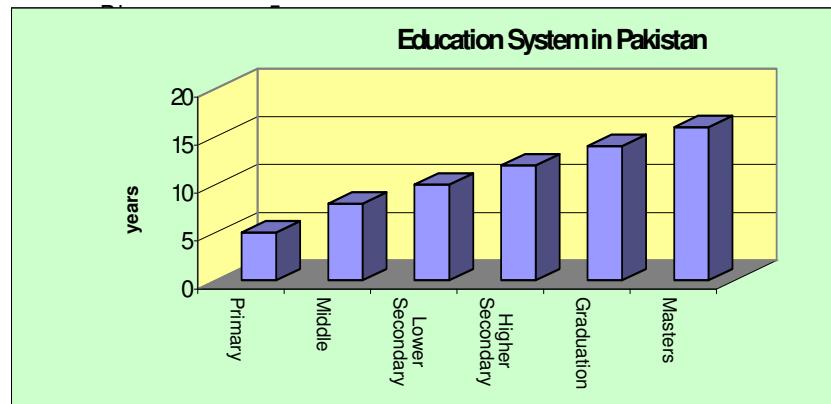


Fig 1 Stages of general Education in Pakistan

The duration of the academic year is nine months, with some variations. There is usually a two-month vacation in summer and a 20-day break in winter. Schools are open six hours a day, with a 30-minute break. Sunday is considered a public holiday.

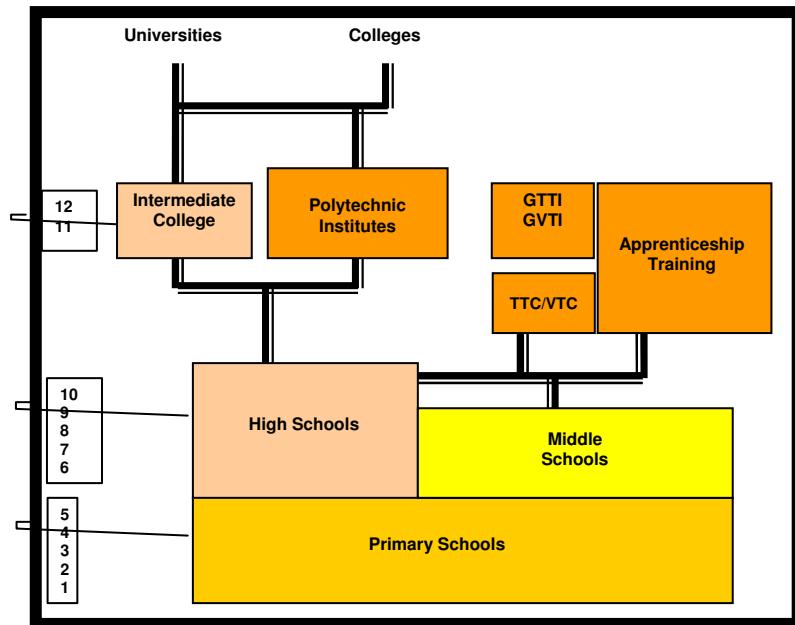


Fig. 2 Formal Education in Pakistan

The training in the technical field may be graded as:

Step I: 3-6 months short courses of Basic Training (labour-Helper)
 Step II: Certificate level (Skilled and semi-skilled worker)

- Step III: Diploma Level (Studies at a polytechnic institute)
 Step IV: Degree Level (Studies at college / university level)

This description is concerned with steps I and mainly with step II. The training towards skilled and semi-skilled worker is done under vocational training system within one of the vocational training centre (VTC) and technical training centre (TTC), mainly run by the provincial governments or through on-the-job training as an apprentice in a manufacturing concern. They offer one and two year courses, leading to Grade III & Grade II and in addition, short-term courses are offered. The Step III, training towards the diploma, is well established and recognized within the industries. Although approximately 60% of the training is related to practical work, according to the curricula, due to lack of materials and tools this part is very often neglected. Even though, graduates are employed in the industries and are found to be useful after a period of in-plant training, after recruitment. They often take positions, which would normally be referred to as skilled workers positions or supervisory level jobs in the industry. The above discussion revealed that presently different vocational training models are being used by different countries such as:

Different models of Vocational Training Structure

Model 1: The Government plays no or only a marginal role within the process of vocational training.

This model could be called a market oriented system or in brief “Market Model”. Examples of this system we find in Great Britain, the USA, and Japan. Although the training systems within these three countries differ extremely, they have in common, that the vocational training is neither connected to the formal system of education by the vocational school at the secondary level, nor is there a separate formal training systems rendering basic vocational training to the majority of the youngsters. While the systems of general education are well established and a high number of youngsters enter college training, the vocational training is left to the initiatives of the individuals, companies, local authorities etc. without almost any governmental rules and regulations. Companies, especially the big ones, play a dominating role within the vocational training.

Model 2: The Government solely plans, organizes, and controls the vocational training.

This model could be called bureaucratic or according to the places of learning “Institutional Model”. Such training systems can be found e.g. in France, Italy and many developing countries. This institutional training is generally closed connected to the system of general education, and the entrance qualifications are set by the level reaching in the general education. The institutional training provides vocational qualification of staged levels, and very often additional qualification at the general level is awarded.

Model 3: The Government includes the industries in the vocational training under conditions, set by the government.

This model could be called a government controlled market system, but due to the involvement of the two partners, the government and the industries, it can be called the dual system of vocational training. Such a system can be found e.g. in Australia, Switzerland and the Federal Republic of Germany, countries with well developed, long traditions of handicrafts and their guilds. The training is not defined to the craft level only, but can also be adopted by the industries as it is done in Germany. The governmental part of the training is done in institutes separated from the system of general education, but these institutes award also qualification equivalent to the general education. The handicraft / industrial part of the training is controlled by the government (Greinert, 1987).

Where does Pakistan fit into these systems?

The existing and planned TTCs and VTCs together with the polytechnic institutes show a picture of Model 2, the “institutional Model” where the government provides training to a limited number of trainees without participation of the industries. Curricula are set by a government institution, in the committees the industries are represented to a limited degree, only. While informal sector of training in Pakistan shows clearly a picture of Model 1, the “Market Model”, where industry and markets train only limited skills to a number of trainees directly in demand for a certain workplace. Systematic skills training and theoretical training is not imparted.

In some bigger sized companies the beginning of a systematic approach can be seen and trainees are accepted under the apprenticeship ordinance, but still this falls under the "Market System", because the control, by the government, is very limited. Already, in 1973, a "Dual System" (Model 3) was introduced in the province of Punjab. Practical Training was done in the industries, while the basic training and the theoretical part was done in the Acts, the Apprenticeship Training Centers. Although this Model had a good start, but the result has not been expected.

Objectives

The main objectives of this research were to:

1. Compare TVET System in Pakistan with Vocational training structures in Great Britain and Republic of Germany.
2. Propose a vocational and technical education and training model for Pakistan

Methodology

This was theoretical paper that compared The vocational educational systems of Great Britain and West Germany with Pakistan, because the British one influenced the Pakistani System significantly, and the West German system of vocational training has proven to be very effective and much sought after there is an increased interest in the dual system of vocational training by some European neighbors. The research was based on documentary analysis with interviews of various stakeholders along with survey of Technical & Vocational Training institutes in public & private sectors. The survey was conducted in Lahore city of Punjab province. The documentary analysis conducted with the support of Technical Education & Vocational Training Authority (TEVTA), National Vocational and Technical Education Commission (NAVTEC), Directorate of Industries, Punjab, Small and Medium Enterprise Development Authority (SMEDA), Statistical Department, Libraries and internet surfing.

Results

The data obtained from interview, survey and document analysis led to the following conclusions:

Training of skilled workers towards the needs of modern industries; can only follow a "Dual system of training" regardless, at the moment, what type it could be. "Dual system of training" was introduced in the Pakistan, UK and Germany. While it is of high importance in Great Britain and Germany, it does not function well in Pakistan, and has not been introduced as per its spirit. Industries did not see the need for a comprehensive training; however, "on-the-job training" is sufficient for a limited task. Industries were profit oriented and did not want to pay for the training (in the province of Punjab the factories have to contribute to the costs for the supplementary training at the apprenticeship training centers, ATCs); well trained craftsmen might go to other industries.

Formal employment in industries falling under the Apprenticeship Ordinance i.e. employing more than 50 employees is attractive to job seekers, and thus, these industries draw skilled labour from the informal sector; Industries were reluctant to utilize their expensive equipment and machines for the training with the danger of damages.

The data also revealed the following advantages and short-comings of the Dual System in plant training.

- near to the reality of productive work;
- number of training places is regulated according to the demand of production;
- quality (contents and degree) of training is regulated to the demand of production;
- un-bureaucratic and flexible approach towards changes;
- training at the place of demand (decentralized);
- training not only on key trades but on a broad range;
- easy incorporation into the working environment;
- low costs due to training cum production;
- access to training for low income groups.

The analysis also revealed some short-comings such as:

- course of training depends on incoming orders and not on a systematic approach;
- incompleteness of the training in the technical context;
- technological knowledge is not imported;
- training is limited to purely subject oriented aspects;
- disability of workers to react to changes due to lack of a comprehensive basic training;
- limited mobility of workers due to training on certain tasks and machines only (danger of exploitation).

Training “on the job” must therefore be supplemented with respect to technical progress (technology transfer and development) and social aspects (development of the personality) by means of complementary measures. These complementary measures can be imported:

- in a factory (training corners, training workshops, factory institutions);
- in an institute, set up by several industries of a certain region or a certain line of products (co-operative workshops / institutes);
- in Institutes run by the government for the trainees within a certain area.

A proposed Training Structure for the Pakistan

Proposing a training structure for Pakistan, the study made the following assumptions:

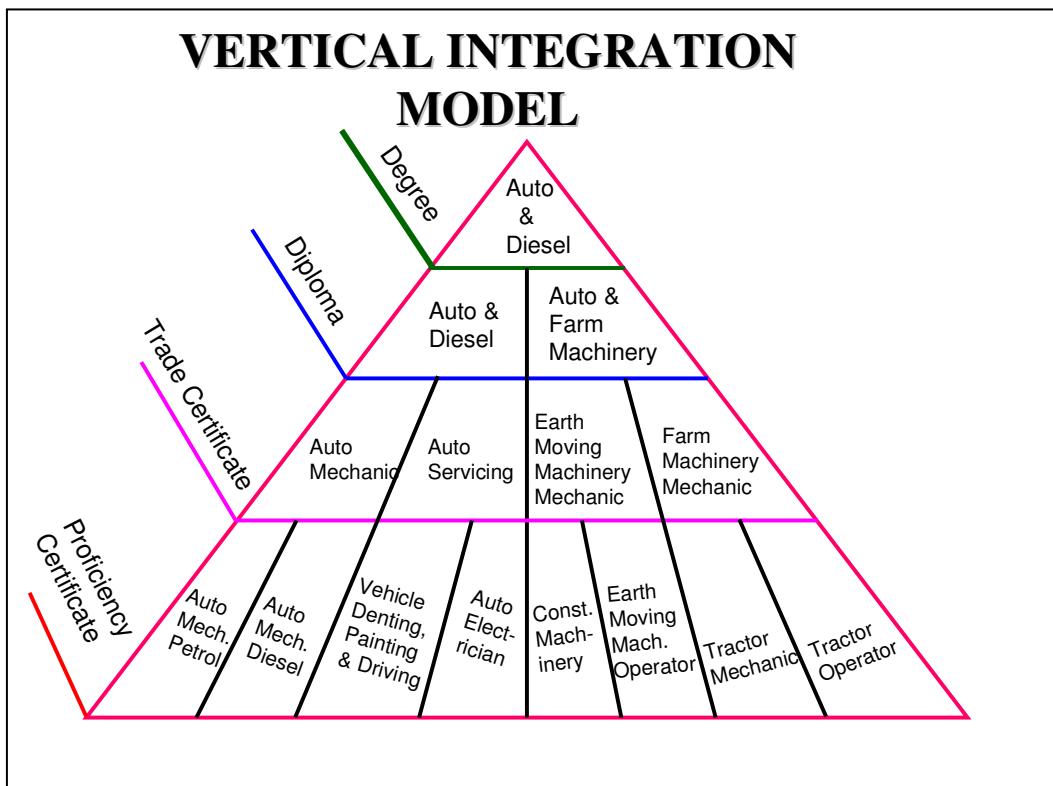
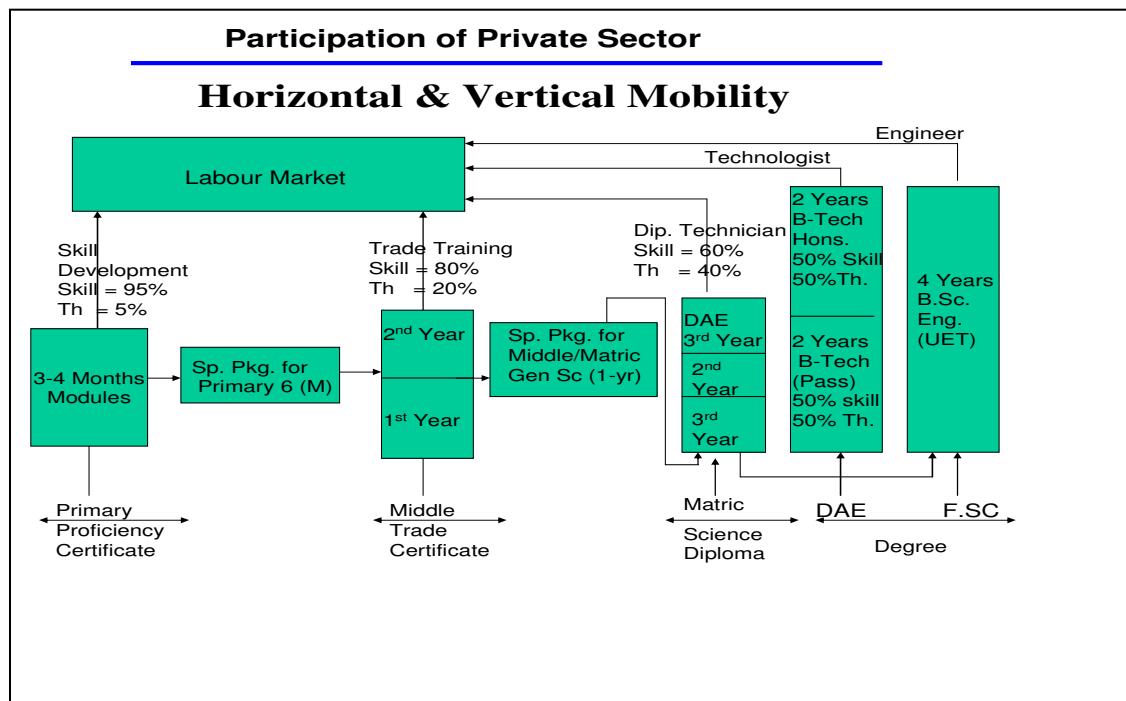
- In countries without industrial tradition, the companies are not in the position to offer vocational training right way;
- Without a tradition of industrial training, a basic training is needed before the start of production oriented training;
- Aspects of maintenance can only be properly taught “on-the-job”
- Work in modern industries demand for theoretical trade know-ledge;
- The provincial government wants to enforce social aspects into the training scheme;
- The government has limited funds only;

These assumptions lead to following conclusions:

- A basic training has to be provided;
- Theoretical classes have to be offered;
- Industries have to be involved for the “on-the-job training”;
- The government has to be involved to control the social demands.

Based on the above, the research proposed the following model for Pakistan:

Module driven vocational training (Figure-1) is recommended for the institutes of 3-6 months duration and leading to Trade Test Grade III, organized by the government, followed by a phase of “Dual Training” leading to Trade Test Grade II. This “Dual Training” should be organized as an institutional training for theory and special skills, and as an industrial training for the skills required for production related work. The duration of the industrial part should be left to the development, and may be increased as the industries are more and more in the position to provide systematic training. Since the maintenance work (maintenance mechanic and maintenance electrician are offer trades), and production work (machinist is an offered trade) cannot be trained beyond the basic level at reasonable costs, the projects should, under no circumstances, try to train towards Trade Test Grade II at institutional level, without the involvement of the local industries.

Figure 1 Proposed module of vocational training**Figure 2 Proposed module of vocational training**

Further Recommendations

- ❖ There may be a mutual recognition of qualifications, with TVET or general education courses. A process of Recognition of Prior Learning (RPL) should be implemented to allow competencies gained through work and other experience to be assessed and recognised.
- ❖ Connect Vocational & Technical institutions with institutes of higher learning.
- ❖ There is a need to strengthen the public-private partnerships to establish leading technical training, education and research institution as “centers of Excellence” in the region.
- ❖ There is a need to connect academic knowledge with practical skills and develop linkages with international knowledge / skill centres.
- ❖ Alumni may be involved in review and revision of the curriculum.
- ❖ The National Vocational and Technical Education Commission (NAVTEC) is mandated to facilitate, regulate, and provide policy direction for technical education and vocational training to meet national and international demand for skilled manpower.
- ❖ NAVTEC may also focus to develop national occupational skills standards, curricula and trade testing certification systems for all sectors in which technical education and vocational training is imparted.

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