

## **IMPORTANCE OF DUAL VOCATIONAL EDUCATION**

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### **Abstract**

The aim of this paper is to present various aspects of Dual Vocational Education System. It is a different methodology for providing training to youngsters. This system works when a strong tie up is available between Industries and institutions. By adopting this system Candidates will get industry level skills along with Academic knowledge.

**Keywords : Dual, Vocational School, Apprentices, Industry, School based system**

### **1.1 INTRODUCTION**

The Dual System is a very organized system of Vocational Education and Training and is preferred by most youngsters now a days. Under this system, students join as apprentices and they combine On- the job- training in industry with part- time compulsory attendance at vocational schools until the age of 18. There is also another system has gained popularity among students wherein students have to put in attendance at full- time vocational schools. The Dual system is admired as a classic way by which the majority of West German school- leavers enter into vocational training programmers. It is characterized by two major features which distinguish it from most vocational training systems in other countries. Firstly, training is split between two instructing parties: the Employer and the School. For one or two days a week students attend state vocational schools, where they combine general education with the theoretical foundation

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of their vocational subject, and for the rest of their working week they acquire practical skills at their place of work. Secondly, here vocational training takes place to a considerably greater extent in the workplace than in school.

The success of this system depends greatly on the co- operation of four major parties: the Federal Government, the Lander Governments, the employers and the trade unions. Under the Dual System, the youngsters are being trained in about 450 different trades under 13 broad categories. The training programmes which apprentices undergo are usually of between three to three and a half years duration, though a large number of occupations require only two years of training. Depending on the successful passing of examinations, apprentices at the end of their training programmes are qualified as skilled or white — collar workers. Majority of the training takes place in the industry and is governed by a series of federal laws and regulations. The bulk of the costs of training within the Dual System are borne by the firms with whom trainees sign a contract which guarantees them employee status. These costs include those of providing instructors, training workshops, machines, and materials, and the remuneration of the trainees.

The success of the Dual System also depends upon the quality of the training which is delivered, which in turn depends upon a sufficient supply of well trained instructors. The training of instructors is therefore taken seriously here. Instructors are required to pass an examination in order to be qualified to train 40 apprentices. They are expected to have personal experience of industry and business. A major cause of concern however, is the increasing number of firms involved in vocational training view their trainees as a form of cheap labour. The Federal Government has to extend relaxed conditions governing entry qualifications there by increasing the likelihood that some firms will exploit their trainees. Equally important is the need to make provisions for the retraining and further training of trained employees, to keep up with changes in technology and reducing the likelihood of them being affected by unemployment.

As the vocational academies have developed, since the mid-1970s more and more dual study programmes have been offered. These combine in-company vocational training with a course of study at a Fachhochschule, university, vocational academy or administration and business academy.

In recent years there has been a steady increase in provision of such dual study programmes. Enterprises obtain highly qualified and motivated young workers, and institutions of higher education benefit both in terms of content and, often, financially from the extensive contact with the world of work and create a distinctive image for themselves by offering demand-based courses of study. Students obtain high-quality training that improves their labour market and career prospects and benefits them both financially and in terms of time.

### **1.2 DUAL STUDY PROGRAMMES INTEGRATED WITH TRAINING**

- Alternate between theory phases in the institution of higher education or academy and practical phases in the training enterprise;
- Regulate the practical training in a training, student-employee or unpaid-trainee contract are characterized by close dovetailing of the content of vocational activity in the training enterprise and the acquisition of theoretical knowledge in the institution of higher education/academy;
- Involve close coordination of and cooperation between institution of higher education/academy and enterprise.

The commonest combination is a course of business management plus commercial training. However, a course in engineering or computer science can also be combined with technical training. Overall, there is a very wide range of possible subject areas, with insurance, mechatronics, commercial law, health economy, mathematics and media informatics being just a few examples.

Over 600 dual study programmes are now listed in the fields of business management, engineering, computer science and natural sciences.

### **1.3 IMPLEMENTATION STRENGTHS AND CHALLENGES**

Dual VET is common in Austria, Denmark, Germany and Switzerland, and partly in the Netherlands and France. The dual apprenticeship system in the German-speaking countries (Austria, Germany, Switzerland) is generally considered as the archetype of the dual approach, accommodating from 40 percent (Austria) to 80 percent (Switzerland) of all school leavers. The three countries share some common and distinctive features in the set-up of the dual vocational education, which we outline using the example of Germany, with the four key institutional elements of the dual system described below:

1. A high degree of formalization that only provides training in centrally accredited occupational qualifications. The training content is continuously adapted to meet the changing requirements of the labor market.
2. Strong involvement of social partners in developing and maintaining curricula at the governmental and federal level, through representative advisory boards. The implementation and monitoring is undertaken by regional trade and/or occupational committees.
3. The school-based part of the dual apprenticeships is provided by vocational colleges, covering both general and occupation-specific education. The costs of training in the schools are borne by the government.
4. Firms have to meet certain technical standards to be accredited as a training firm. Offering apprenticeships is optional for companies, with the match between firms and trainees following standard application procedures. The costs of training within the firm are covered by the training companies.

#### **1.4 EVALUATING THE DUAL- VERSUS THE SCHOOL-BASED SYSTEM**

It is generally found within cross-country comparisons that those maintaining a substantial dual apprenticeship system, such as Austria, Denmark, Germany and Switzerland, exhibit a much smoother transition from school to work, low NEET rates and youth unemployment, and below average repeated unemployment spells than other countries (Quintini and Manfredi 2009; Quintini, Martin and Martin 2007). However, it must be noted that labor market transitions of youths only provide partial evidence for the relative performance of the training systems in the respective countries, with a causal analysis clearly impeded by the co-variation of other relevant institutional factors. Further problems arise from the absence of a unified framework for defining the respective training options and collecting data on the costs and benefits experienced by the state, firms and trainees.

A more extensive area of research exploits the co-existence of apprenticeships and other types of vocational schooling within countries to generally infer about their relative effectiveness and more specifically the relevance of firm-specific skills. For the case of Germany, studies by Winkelmann (1996) and more recently Parey (2009) show that participation in the dual apprenticeship has the particular advantage compared with other options of the vocational

schooling system of improving early labor market attachment and a faster and more structured integration into the labor market. However, this advantage fades over time as other education participants find a foothold in the labor market. Furthermore, the studies show that the fast initial transition does not hinge on finding employment in the training firm, suggesting that firm-specific skills do not play a major role in the German apprenticeship system. Investigating wage differentials, Parey (2009) does not find any significant differences in return to the training options in the early working life. A recent study by Adda et al. (2011) considers the relative employment and wage profiles of participants in the dual apprenticeship system and unskilled workers in Germany over 15 years following initial labor market entry. They find that having participated in formal, work-related training (the apprenticeship) leads to overall higher wages compared to pure on-the-job training (unskilled) and a stronger labor market attachment, thus compensating workers for initially low wages during the apprenticeship training.

Similar results on the performance of apprenticeship training versus school-based training are found in studies by Bonnal et al. (2002) for France and Plug and Groot (1998) for the Netherlands. Correcting for the negative selection of youths into the dual apprenticeship, both studies find that apprenticeships perform significantly better in integrating youths into their first employment relationship by the higher labor market relation of their training.

However, again this advantage is found to fade over time and is not associated with higher wages. A recent study by Alet and Bonnal (2011) shows that young people integrated into the dual apprenticeship system rather than vocational schooling in France are more likely to successfully complete their final exam and undertake further education.

In countries where the dual apprenticeship is not seen as a "trainer of last resort" for lower skilled individuals, the apprenticeship system is also found to partially act as a mechanism to level the playing field for youths with low school performance. Exploiting information on PISA test scores to capture differences in ability across students, Bertschy et. al. (2009) show that lower performing youths in Switzerland tend to select into less demanding apprenticeship occupations and are thereby penalized in the labor market – however, their initial test-score (as signal of their ability) is no longer important in determining labor market outcomes.

The bottom line is that, once selection is accounted for, the dual system seems to offer an advantage of improving early labor market transitions (measured in a variety of ways). Nonetheless, evidence seems to indicate that these benefits eventually fade away. Given that the dual system tends to be more effective than school-based VET, why is it not as broadly implemented around the world? The next section reviews countries' efforts to establish a dual-system around the world.

### **1.5 ESTABLISHING A DUAL-SYSTEM AROUND THE WORLD**

It is generally important to consider that the dual VET depends on some essential preconditions, for instance it relies on strong cooperation between government and employers regarding the development of the institutional framework for VET, the development and adjustment of curricula, the certification of competences and co-funding of plant-based and school-based elements. In addition to these regulatory and budgetary issues, the dual system also depends on active support from actors as described below:

- The acceptance of apprenticeship contracts paid below regular contracts by trade unions;
- The willingness of many employers to provide training, not primarily in an informal manner but according to occupational curricula, to send apprentices to vocational school leading to certified occupational qualification, and to provide them with a credible prospect of sustainable employment;
- The support from the government in not only providing vocational schools and teachers but also preparatory training for young people failing to enter apprenticeships;
- The acceptance of VET by young people and their parents as a solid alternative to academic education.

These elements tend to be mutually reinforcing. As they have developed over a long time, these conditions cannot easily be transplanted to a different institutional and historical context. However, many countries have tried to develop dual VET programs as described below.

**IN THE US.** Numerous efforts have been made to establish a dual apprenticeship system for the vocational education of youths in the US. For instance, the National Youth Apprenticeship Act

under the administration of George Bush and the School-to-Work Opportunity Act under President Clinton were two attempts at implementing the dual system.

However, according to Lerman and Rauner (2012), wide-spread participation in the youth apprenticeship could not be reached due to the inability of employer organizations to coordinate long-term training plans, and the federalist division of responsibilities that impeded a binding national framework for the training systems. Furthermore, there is a general mistrust in the idea of imparting specific human capital, as it is likely perceived to lose its value more quickly in a continuously changing labor market (Krueger and Kumar, 2004). Consequently, tracking youths in high-school into occupation-specific and general education prompts some concerns regarding stigmatization and limited opportunities for the occupation bound youths. Finally, there appears to be a lack of interest in participating in this exchange on the part of employers. They are unwilling to endure the perceived high costs of training, not knowing whether they will be able to recover these costs at a later stage (Shapiro 1999). Despite the futile efforts at the federal level, some states were able to establish and maintain a functioning small-scale dual apprenticeship system, particularly in the construction industry (Bilginsoy 2003).

**IN EGYPT.** Based on the so-called ‘Mubarak Kohl Initiative’ started in 1991, Germany has assisted Egypt in establishing technical and VET structures modeled along the lines of the German ‘dual model’, with its emphasis on dual training and societal consensus. It aimed at improving relations between actors such as ministries, vocational schools, training centers and firm-level training, as well as setting standards for occupational qualification. The German Society of International Cooperation (GIZ, Gesellschaft für Internationale Zusammenarbeit) supported the program until 2008 assisting in the development of training curricula and trained instructors. The provision of apprenticeships was coordinated by the newly created National Center for Human Resource Development related to private employers in Egypt as well as the Ministry-related Directorate for Vocational Education and Training. The program started to offer the possibility of entering into three-year courses of dual VET to secondary-school graduates in Egypt, in 28 occupations involving around 1,600 firms providing training and 44 vocational schools. Available qualitative evidence gained from interviews with participants and follow-up

tracing points at a smoother transition of program participations from school to work and better earnings after completing dual VET.

Employers continue to support the program, perceiving a better trained workforce as a major benefit (Adams 2010). The pilot is now established as a regular part of the Egyptian training system run by the Egypt Ministry of Education and the industrial partners, on a stable legal basis. As of 2009, 32 occupational profiles were trained in 76 technical schools involving around 1,900 companies, mostly in the formal and industrial sector. By 2009, 24,000 young people had graduated, with 13,000 in training. However, this is largely insufficient compared to the overall challenge in Egypt, which needs to integrate around 1 million young people into the labor market per year. Observers also question the sustainability of the program without external support.

**IN SUB-SAHARAN AFRICA.** There are some examples of modernized apprenticeship systems in Sub-Saharan Africa. For instance, Benin modernized its VET system in order to better meet urban economic demands, with a dual apprenticeship system with alternating phases of theoretical and practical training in place since 2006, mostly devoted to traditional crafts such as masonry, electrical trades and plumbing. While one day is spent at school, five days are devoted to learning on-the-job. Participants can obtain a certificate of qualification (certificat de qualification professionnelle) after 600 hours in a training center. It is expected to have around 3,000 graduates per year, which indicates the small scale of the system. The new system should also be able to certify qualification from work experience. In Mali, where the VET share is far above the African average, a dual training model combining around 80 percent time spent on work supervised by a trained artisan and 20 percent formal courses in training centers was introduced in 1997. There is some evidence of this reform leading to better skill formation and inclusion into the labor market, particularly due to the systematic involvement of the private sector (Rioust de Largentaye 2009). Nonetheless, these models are relatively small and tied to traditional crafts. In Ethiopia, the education system was reformed in around 2000 to strengthen primary education for all young people, which now lasts for 8 years, and to complement this with vocational courses in technical subjects lasting for one or two years. There is some preliminary evidence of improved labor market performance of recent training graduates (Denu, Tekeste and van der Deijl 2005). As shown by the Gambian example of the National Youth Service Scheme



established in the mid-1990s, young people mostly turn to self-employment or work unrelated to the occupations learned (Lahire, Johanson and Wilcox 2011). Still, a major challenge involves moving beyond pilot projects and establishing VET at a sufficient scale given the number of cohorts entering the labor market every year.

Despite multiple efforts to establish a dual-system of VET in quite diverse countries, successful initiatives remain relatively small-scale and tied to certain sectors such as the construction sector in the US or traditional crafts in sub-Saharan Africa. The challenges of establishing a mainstream dual VET system around the world highlight the need for a specific type of institutional framework, the complexity of which is not easy replicated in either developed or developing countries.

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