

Chapter 3

## The attractiveness of TVET

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# 1 Introduction

This background paper addresses the issue of what barriers lie in the way of technical and vocational education and training (TVET) becoming a more attractive option, the social dynamics that create such barriers, the attitudes and options of the various interested parties, and finally, approaches that may be taken to make TVET more attractive.

By 'attractiveness' in relation to TVET is meant the preferability of TVET compared with alternatives. Thus for individuals this means the preferability of TVET as opposed to, for example, direct engagement in the labour market or the pursuit of higher education. This is also the case for parents' preferences for their children. For employers and trade unions it relates to consideration of the alternatives of not providing TVET at all or of hiring individuals who have already received TVET elsewhere. For governments it is more complex. The attractiveness of TVET for governments is manifested as a policy preference contrasted with options such as the development of higher education (HE), leaving decisions to employers, or investment in general education. In the case of governments the attractiveness or otherwise of investment in TVET as a policy option is likely to be bound up with economic and political priorities and ideological predispositions as well as short-term pragmatic considerations.

## 2 What is TVET?

### 2.1 Some basic terminology

The phrase 'technical and vocational education and training' needs to be carefully unpacked before we can have a clear view of what it means and why it may or may not be attractive. We should also note that this is not terminology in universal use. For example VET (vocational education and training) is more commonly used

in Anglophone countries. We need, in particular, to discuss 'technical education', 'vocational education' and 'training', as these are all distinct, if related, concepts.

**Education** can in a broad sense be defined as a preparation for adult life or for a phase of adult life. Since a significant part of most adults' lives is spent in paid employment, vocational education is that part of their education that prepares them for this element of their lives, just as general education prepares them to develop themselves as individuals and civic education as citizens. None of these are mutually exclusive, as we shall see, and indeed an important element in making TVET attractive rests on its having relatively porous boundaries with these other aspects of education.

**Vocational education** should be clearly distinguished from training. Training is essentially concerned with the inculcation of routine activities so that they can be carried out with competence and confidence. This does not mean that they should be carried out without the exercise of judgement and discretion. Gilbert Ryle's distinction between training and conditioning makes this clear (1949, p. 43). Someone who is trained may have to perform the same type of task repeatedly; in doing so however, they have to adapt to the particularities of each task, the context in which they are operating and the requirements of their manager or customer. Someone who is conditioned, on the other hand, simply performs a routine without thinking or exercising judgement.

**Training** is, in fact, a significant part of the education of all of us, and not just part of our vocational education, to the extent that competence and confidence in certain routine and regularly performed activities are preconditions of more sophisticated forms of learning (Winch, 1998, ch. 5). We should not regard training as particularly vocational in character; rather accept that training to carry out routine tasks is a necessary part of preparation for many kinds of practical activity as well as job. But it is a very different matter to maintain that vocational education is nothing more than training. When in fact that is all it appears to be, we are likely to find employment where routine work is all that is available, and the preparation for it is correspondingly less attractive than other forms of education. The distinction between vocational education and training is, then, of great importance, and needs to be observed carefully in the construction of TVET programmes.

**Technical education** involves preparation for the use of techniques, usually in vocational activities. These techniques are derived from the application of scientific principles to practice. Indeed, it is sometimes said that those whose expertise derives from the application of science, or more generally of systematic knowledge, to practice, are technicians even when their occupation is classified as a profession (ISCO, 2008 pp.14 ff; Freidson, 1986). It is easy, therefore, to see why technical education is usually associated with vocational education although it is not to be identified with it since there are forms of vocational education that prepare people for occupations whose practice does not require the application of systematic or scientific knowledge. See Sturt (1923) for an eloquent and highly informative account of a traditional rural craft occupation.

## **2.2 The relationship between TVET and HE**

Although higher-level (International Standard Classification of Education [ISCED] 5B and above) vocational education needs to be considered in this paper, especially level 5B, the main focus is on TVET that has exit qualifications below that level. HE, classified as ISCED levels 5 and 6, also needs to be considered. There are two relevant issues. The first concerns permeability or the capacity of a qualification at ISCED level 4 to provide access to and preparation for a qualification at level 5 and above. The second concerns qualifications at level 5, particular at 5B, which are of an explicitly occupational orientation (ISCED, 1997, paras 89–90). The attractiveness of TVET is connected to both issues, and therefore the relationship of TVET to HE is of major importance here. A significant part of HE is directly concerned with TVET, and so we cannot give an adequate account of the attractiveness of TVET without a close consideration of its relationship to HE.

## 3 Why is there a problem concerning the attractiveness of TVET?

### 3.1 History

TVET has traditionally been thought to be a relatively unattractive educational option compared with higher education (including vocational higher education, VHE). While the relative unattractiveness varies greatly across different countries and cultures, it is nevertheless remarkably pervasive, and has ancient roots:

When we abuse or commend the upbringing of individual people and say that one of us is educated and the other uneducated, we sometimes use this latter term of men who have in fact had a thorough education – one directed towards petty trade or the merchant shipping business, or something like that. But I take it that for the purpose of the present discussion we are not going to treat this sort of thing as 'education' when what we have in mind is education from childhood in virtue, a training which produces a keen desire to become a perfect citizen who knows how to rule and be ruled as justice demands.

(Plato, 1970, p. 73)

Until very recently, in most civilizations, education was offered only to a small proportion of the population. Training, on the other hand, was provided in order for the large majority of the population who find themselves in employment of one kind or another to do their work. Sometimes, for a relatively favoured few, it was in the form of a formal apprenticeship with a contractual agreement, but for the vast majority of the world's population, informal workplace learning or an extended informal apprenticeship was the most that they could expect. It was rare that such forms of vocational learning incorporated elements that belonged to the curriculum of those who received a formal education. The confinement of restricted TVET to the non-élite sections of the population, and the isolation of its curriculum from that of élite education, did nothing to enhance its attractiveness.

Connected with this is the fact that to engage in paid employment was widely thought in earlier times to exclude individuals from participation in élite culture. Those being paid to work were essentially seen as engaged in ignoble activities not befitting a gentleman. As Aristotle says of musical education:

The right measure will be obtained if students stop short of the arts which are practised in professional contexts and do not seek to acquire those fantastic marvels of execution that are now the fashion in professional contexts and from these have passed into education.

(Aristotle, 1988, Book VIII, p. 193)

In other words, the educated person in Aristotle's day would be aware of the difficulty of making music in order to appreciate it properly, but would not stoop to acquire the degree of professional expertise that is proper to someone who has to make a living from playing.

TVET has then been associated historically with those classes of society who have to work for a living and who do not partake of the kind of education fit for the gentry, even if the greatest experience and ability is required in order to practise an occupation. A conception of what a worthwhile life could be has thus been implicitly shaped around the ideal of cultivated leisure. Working for a living has traditionally been thought in many societies to be undignified and not a worthwhile way of spending one's time. This view was reinforced in classical and neoclassical economic theory through the idea that work is a disutility and needs to be compensated for (Verdon, 1996, p. 21).

Although this kind of negative attitude is associated with an obsolete view of society, in which education was not offered to the great majority of the population, it nevertheless has a continuing effect on the attitudes of wide and influential strata of the societies of many different countries around the world concerning the aims of education in an age of mass public education. The expansion of education through mass public provision has sometimes been accompanied by renewed thinking about what its aims should be. However, where this thinking does not take place there is often an assumption that the aims that hold good for a small, economically independent élite will hold good for the rest of the population. In other words, there



is no distinction between the aims of education for a small élite accustomed to leisure and personal cultivation, and for the large, economically dependent majority of the population.

Even the initial restricted expansion of education, which developed a stratum of officials who could manage the complex literacy-dependent demands of running an industrial and financial economy, did not raise tensions too seriously. It turned out that the kind of liberal education offered to them was not too dissonant with their employment trajectories. But it is almost inevitable that there will be a tension between the expectations of new strata of society brought into education and the aims, often unstated, of the newly expanded public education system. It cannot be assumed that the aims of education considered desirable by the élite or the new bureaucratic class will be regarded with favour by the rest of the population, apart from those who wish to move socially into one of these classes.

This was a problem of which the earlier advocates of mass education like Wilhelm von Humboldt, Adam Smith and John Stuart Mill were aware (Benner, 2003, ch. 2). Even liberals like Smith and Mill thought that sanctions would be necessary in order to ensure that parents met their educational responsibilities. In Smith's case this involved restricted labour market entry for those who failed to gain appropriate qualifications (Smith, 1776/1981, p. 786). In Mill's case it involved fines on negligent parents (Mill, 1859, pp.161–62). In both cases mass assessment was thought to be necessary in order to enforce such policies.

Neither of these authors, however, paid much attention to vocational education. They assumed that a good general education was a sound basis for citizenship even if it was not always necessary for employment. This omission is a legacy which some developed countries have, with varying success, struggled to overcome in their development of TVET. A particular problem has arisen over the perceived discontinuity between TVET and liberal/academic education. Where the discontinuity has been institutionalized, problems of the attractiveness of TVET have become particularly acute. We can see, therefore, that attention to the fundamentals of education is a necessary basis for reforms that seek to make TVET attractive to broad sections of the population.

## **3.2 Contemporary implications**

The challenge is, therefore, to provide an appropriate kind of education for a large section of the population, which suits their needs but does not seem degrading at the same time. One way of approaching this which has been tried with some success in Western Europe is to frame the aims of the public education system in such a way that developing different dimensions of their humanity is recognized as an appropriate goal for all who undertake public education. The emphasis may vary from individual to individual, but participation in common goals will be prescribed for all. Thus French education recognizes that all should be prepared for roles as individuals whose personal development is important, as workers (economically active) and as citizens capable of taking part in the life of a democracy (Méhaut, 2011, pp. 36–49). It is an important feature of any such aim if it is officially recognized, that being economically active is, in some sense, both a valuable and a rewarding exercise of human powers and a recognizable expression of humanity (Kerschensteiner, 1906). Furthermore, and in pursuit of this objective, all qualifications recognized as educational, but with a significant vocational purpose, should have a dual value both as passports through education and as accreditation in the labour market.

There are a number of issues that we need to consider.

### **The need to sustain promises made about the individual value of post-secondary education**

Although the development of mass education has had a number of aims, and although compulsion exists in order to ensure it, education has also to hold out a promise of a better life to those who have to undertake it. TVET needs, therefore, to have demonstrable benefits. These need not only be economic ones, but if economic benefits do not result, then the attractiveness of TVET becomes problematic.

### **The need to address disparities of esteem between academic and vocational education**

It is often said that there needs to be 'parity of esteem' between vocational and non-vocational education (e.g. HM Treasury, 2006, p. 16). There are reasons for thinking that this is more a hope than an expectation. We have already noted that TVET attracts

less esteem than liberal education, and that it has done so for a long time. There is no doubt that the gap in esteem between liberal and vocational education varies in different states and societies, and there are some countries, such as Germany, where TVET has traditionally enjoyed high esteem. But this does not mean that it enjoys, or is likely to enjoy in the foreseeable future, 'parity of esteem'.

However, there is a problem when TVET enjoys little or no esteem, and it should be one of the priorities of governments interested in increasing its attractiveness to individuals that it should enjoy a substantial degree of esteem. 'Parity of esteem' is probably a chimera; a good degree of esteem, will however, greatly enhance the attractiveness of TVET. We look in more detail at this issue below. However, it is almost tautological to say that if TVET does not enjoy at least some degree of esteem, it is most unlikely to be an attractive option to more than a small minority of the population.

### **The need to provide technical resources for economic development**

Economic development, especially if it is to be based on development of a society's productive powers, demands, among other factors, the development of the technical potential of a sizeable proportion of the working population (List, 1841, ch. 16). States that are concerned with economic development in this sense are drawn to consideration of how it is possible to develop these kinds of resource. TVET is a potentially attractive route for such governments if their aim is to develop an economy that relies on technical and vocational abilities that, although they require the basis of a good lower secondary education, do not require higher education for their development.

'Technical resources' in this sense means abilities that involve the application of systematic and scientific knowledge to manufacturing or service activities. Such knowledge is that of the 'technician' rather than the 'technologist': that is, someone who makes use of systematic knowledge in performance and judgement in the workplace in conditions of moderate independence. Such employees are not normally required to contribute to the creation of systematic knowledge relevant to their occupation, although they might do so on occasion. Economies such as that of Germany, which specializes in high-quality, high-value-added manufactures and services, rely greatly on having a large proportion of employees of this type. For

states that do not propose that a major part of their economic development takes place along this route, TVET is a less attractive option.

### **The need to provide sustainable resources for economic sectors in danger of being neglected in rapid economic development**

This is a pressing issue at the current time for societies such as India and China, whose path of economic development involves rapid urbanization. Although such economic development involves huge population shifts into urban areas where new forms of work are available, such societies will continue to have predominantly rural populations which participate in economic development in a much more limited way. There is a serious danger that rural communities and their economies will become impoverished relative to the new urban areas, and that they will suffer significant depletion of human, cultural and social capital as a result of migration.

Yet the economic activities that they support will continue to be of importance not just to these communities themselves, but to the national economy. Such sectors as fisheries, agriculture and craft manufacture are particularly significant in rural areas. Vocational education in these contexts has tended to be informal and based on traditional forms of apprenticeship. Technical innovation has tended to be ad hoc and uneven, and the TVET infrastructure has been limited. In addition, poor transportation infrastructure and distance have tended to militate against the concentration of good-quality TVET provision, making informal VET the only realistic option. However, the inevitable backwardness of informal rural VET, which is unable to access either technical innovation or a significant educational element apart from technical and craft training, is likely to make it increasingly unattractive to young people, thus accentuating urban drift. Improving the offer of rural TVET in developing societies is vital to making it more attractive to potential consumers. The ability to slow down or halt unwanted urban drift and the prospect of reviving rural economies should make the right kind of rural TVET strategy attractive to national and regional governments as well.

For those societies with high levels of upper primary general education and literacy, such as can be found in parts of India, it is increasingly clear that the successful transition of youth into employment within or near their own communities cannot be guaranteed by the provision of near universal literacy if there are not sufficient

labour market opportunities to retain young people in the locality. TVET is potentially attractive to regional governments in such areas as a significant way of retaining their young people and of furthering economic development based on contemporary approaches to the provision of manufacturing and services.

See for example, the Government of Kerala's website on TVET:

Technical education contributes substantially to the Socio Economic development of the country as a whole. The development sustenance of the industrial sector is entirely dependent upon the availability of trained manpower to perform the multidimensional activities needed to keep the wheel of industry running. The Technical Education Department aims towards making available these trained technically qualified hands to serve the industry and society.

There are also further details on the wide variety of TVET institutions in the state ([www.dtekerala.gov.in](http://www.dtekerala.gov.in)).

### **The need to cope with a possible oversupply of non-vocational higher education**

Evidence is growing that mass access to higher education in developing as well as developed societies is leading to declining economic returns for graduates. This phenomenon is not confined to the developed world (Brown et al., 2011, pp. 116–21). Clear social as well as economic dangers are posed by this phenomenon, and governments may find that excessive concentration on certain sectors of higher education constitutes a poor allocation of resources with consequent high and unacceptable opportunity costs. There are also considerable costs involved for those undertaking HE programmes. These consist of opportunity costs for employment forgone while undertaking HE, and also, in most cases, direct or deferred payments for tuition fees and maintenance.

There is another unwelcome consequence of HE on a mass scale, which has been less remarked on but which is directly relevant to the attractiveness of TVET to individuals. HE is widely regarded as a positional good irrespective of the knowledge and skills that are actually accredited by an HE qualification (Hirsch, 1976). It is of positional value in both education and labour markets, so in the latter a HE qualification, even if it does not give access to employment which requires the skills and knowledge

acquired during that particular individual's HE course, can nevertheless give access to scarce employment which in theory requires a lower level of qualification. HE thus becomes attractive, not because of its intrinsic or even vocational merit but because of its role as a filter into the sub-graduate labour market.

The borders between TVET and HVET are increasingly porous, and are in some respects arbitrary. One way of addressing the problem of oversupply of HE accreditation is to increase the supply of vocationally oriented HE at bachelor or sub-bachelor level. Care needs to be taken however, because if such qualifications are only sought as a positional good, then neither individuals nor society are likely to gain. VHE, which is related to labour market demand, can however potentially combine the employment relevance (and hence earning power) of TVET with the positional attractiveness of an HE qualification. It is therefore desirable to ensure that such routes are related to types of economic activity that have a genuine need for a VHE qualification.

### **The need to address social inequalities that are exacerbated by rapid economic development**

Rapid economic development, where it is accompanied by rapid urbanization and rural–urban drift, and particularly where it is accompanied by an initial phase of low-value-added export-oriented manufacturing, tends to result in new urban populations which have a poor supply of the financial, cultural and social capital necessary for full social participation. Such societies rely for their international competitiveness to a considerable extent on low wages for relatively unskilled labour. However, as other developing societies are drawn into this pattern, the comparative advantage that this can provide diminishes rapidly. At this stage movement up the value chain becomes important, but a state-supported infrastructure is needed to enable it.

TVET may become crucial in moving up the value chain, but only if a certain trajectory of economic development is adopted. This depends on first, technically enhanced manufacturing and service sectors, and second, an agricultural and rural craft sector that benefits from the increasing technical knowledge and the infrastructure provided by economic development (List, 1841, ch. 20). TVET will also be crucial in helping to address the ills that arise from extreme social inequality (Wilkinson and Pickett, 2009; Wilkinson, 2005). Because these factors can lead to employment with

greater levels of remuneration than are available for unskilled and semi-skilled work, and can reduce the need for a large stratum of supervisory and lower management staff, they can result in wage differentials being reduced while at the same time providing employment that requires a degree of autonomy and discretion.

The attractiveness to individuals of TVET in this situation can also be enhanced by drawing on another feature of TVET in developed countries that rely on intermediate qualifications. TVET in countries such as Germany and France provides not only the underpinning technical knowledge related to employment skills, but also a continuing offer of general education. Not only does this have an integrative function which helps to lessen the 'esteem gap' between TVET and general education, it also helps to provide the flexibility that allows for occupational evolution and for individual transfer from one occupation to another (see Wolf, 2011, pp. 36–37 for evidence of occupational change in Britain and Germany). TVET has a particular advantage for developing countries that are moving rapidly up the value chain, by allowing for occupational change and mobility and by providing an infrastructure that can cope with these changes.

Added to these considerable advantages are those of providing a greater degree of satisfaction at work, higher levels of self-esteem arising from increased earnings and independence in the workplace, and increased investment by employers in an asset in which there are the 'sunk costs' associated with TVET. Such investments are more likely to be made in a context where there are robust occupational markets arising from a steady supply of qualified workers, and where poaching of scarce skilled employees is not a serious matter of concern for individual employers (Hanf, 2011; Culpepper, 1999, p. 45).

### 3.3 Why the problem?

The lack of relative attractiveness for TVET has deep roots in attitudes that have existed for millennia. Foremost amongst these is the traditional bias of the élites towards education for leisure, contemplation and aristocratic civic participation (e.g. Aristotle, 1988). The advent of mass education failed, in many societies, to shift the dominant élite perception from those strata who were new participants in education.

For some thinkers on the left, such as Gramsci, a classical education was seen as the birth right of the working class, and TVET as a means of enforcing their economic and political subordination (Gramsci, 1971). The view that TVET is a somewhat demeaning option is one still held by many sections of the population, including in many cases those who feel that they need to participate in it, though as a second best. In most countries such views have been relatively little challenged. Not many have produced thinkers such as John Dewey (1977) in the United States of America (USA), and Georg Kerchensteiner (1968) in Germany, who argued for the educational as well as the economic benefits of TVET.

The transition from an predominantly artisanal to an industrial economy based on a strong Taylorist fragmentation of the labour process tended to reinforce the view held by both governments and employers of TVET. It was seen as an instrumental means of adapting workers to new industrial processes rather than of continuing their education (see the debate between John Dewey [1977] and David Snedden [1977] for example). Only later, as the economic benefits of high-skill equilibrium (HSE) (Finegold, 1991; Mayhew and Keep, 1998) became more apparent, did TVET begin to take on a different aspect for these stakeholders.

## 4 Barriers to the attractiveness of TVET

The preceding discussion of the relative attractiveness of TVET to the main interested groups in a society gives some powerful clues to the barriers to participation in TVET. However, rather than deal with each of these groups case by case, it is best to consider first what are the most difficult obstacles to overcome in order to make TVET attractive.

### 4.1 Lack of demand from employers

We will start with the question of how an adequate demand for TVET can be generated. We will take the view that the supply of TVET cannot, by itself, generate sufficient



demand from employers. Failure of employers to demand TVET from their employees or prospective employees will, in turn, affect the demand for TVET from prospective employees. Whatever we think of human capital theory (HCT) as an exclusive account of the propensity to invest in TVET, it is nonetheless the case that individuals are less likely to do so if low or zero economic returns are known to be the result. In any event, were an individual to so invest, the inability to transform that investment into employment commensurate with the skills and qualifications achieved would tend to discourage other individuals from making such an investment.

What then are the principal barriers to employers investing in TVET? The most obvious of these is that there is inadequate return on investment. Employers are likely to invest in TVET if there is a positive economic return from doing so. However, it may well be the case that the business strategy of employers is not consistent with extensive investment in TVET. A common reason for this is the existence of low-skill equilibrium (LSE) in the economy (Finegold, 1991; Mayhew and Keep, 1998). In an economy run as an LSE the dominant pattern is production by low-wage employees, of low-specification, low-cost goods and services which are purchased by people who can only afford goods and services of this low quality. An equilibrium in this sense is a state of affairs any change to which would result in a loss of utility to at least one of the affected parties (Varoufakis and Hargraves-Heap, 2004). For employers to seek to exit an LSE would constitute a significant business risk.

Even if an employer could see a viable business strategy involving such an exit, the change in orientation is fraught with risk. The most obvious is that the investment made will not result in a profit, because, for example, rival employers poach the trained employees, offering them higher wages. They can afford to do this because they have not paid out for the cost of the TVET. This is a good example of a 'prisoner's dilemma' situation in which the dominant strategy for an employer is not to provide TVET (Lewis, 1969).

It is worth noting that a similar effect works on an international level when there is free movement of labour. If a country produces many individuals with high levels of TVET, and another country has a demand for them but an inadequate supply, there will be a tendency for individuals to migrate from the country where they have

trained to the country with high demand but a relatively low supply. Another kind of situation arises where employers are misinformed or lack correct information about the circumstances in which an investment in TVET will pay off. This kind of barrier is easier to remove than the other ones mentioned.

What can make TVET attractive to employers? A situation in which investment in TVET is supported by their business strategy is the most obvious case. The existence of an occupational labour market (OLM) in the relevant occupations helps considerably. An OLM ensures that there is an adequate supply of skilled labour which is relatively mobile within the occupation. The loss of a valued employee can be minimized through easy recruitment. It is important to point out however that unless there are appropriate institutional arrangements to prevent it, there remains a possibility that a single employer could fail to provide TVET but benefit from its rivals doing so. This situation would, inevitably lead to the disappearance of the OLM unless there was an exogenous supply of trained labour. OLMs are therefore usually supported by institutional arrangements. These are often voluntarily arrived at by employer associations, but they typically also need regulatory and resource underpinning by the state. Such arrangements include:

- State subsidy for the general education elements of TVET;
- A requirement for a levy-grant system, whereby all employers are required to fund TVET, and in return their employees or apprentices obtain the training should the employer request it;
- A licence to practise scheme which ensures, through accreditation and qualification, that only individuals with appropriate TVET can enter the labour market.

The last two features here are not popular with employers.

Some countries, such as Japan, rely heavily on internal labour markets (ILMs). In this system the individual employee pursues a career within a firm and receives appropriate vocational education and training for different functions (Ariga, Brunello and Ohkusa, 2000). In such cases employers can provide incentives to valued employees and can be more confident that investment in TVET will not be wasted.

## 4.2 Suspicion on the part of trade unions

Such suspicion is by no means universal. As was noted earlier, in countries with strong social partnership institutions and OLMs, trade unions are likely to show a deep commitment to high-quality TVET. However, there are two circumstances where the expansion of TVET may lead to suspicion. The first is where trade unions are organized on craft lines with informal apprenticeship arrangements (see for example Pemberton, 2001 on the situation in the United Kingdom). These could be disrupted by more formal kinds of TVET, which would undermine a union's ability to control entry into the trade. The second circumstance is where a trade that has traditionally relied on unskilled and unqualified labour is in a state of transition towards qualification or upskilling. Unless the situation is handled carefully it is quite possible that trade unions will consider the new arrangements to be a potential threat to the employment and conditions of their current members.

On the other hand, there are very good reasons for TVET to be attractive to trade unions under certain conditions. The need for good qualifications in an OLM can lend a degree of independence to employees relative to individual employers. Occupationally oriented trade unionism can benefit from a steady supply of qualified workers, who are relatively easy to organize along occupational divisions.

Critical to promotion of the attractiveness of TVET to trade unions is the development of social partnership arrangements in which practical problems of governance and implementation are addressed in a concerted way by employers, unions and governmental organizations. Some countries rely heavily on social partnership to ensure the running of their TVET systems, and in such arrangements trade unions play a central role. In Germany, for example, the unions tend to be sturdy defenders of the *Berufsprinzip*, or the idea that the economy is organized around OLMs depending on a qualified and accredited workforce (Streeck, 1992; Hanf, 2011).

## 4.3 Lack of government action

Governments almost always find TVET attractive at an abstract level, but they will weigh up the benefits and costs in an economic and social sense, as well as the political capital that needs to be expended in order to achieve certain objectives.

The asynchronicity of institutional and political timetables is a factor most likely to weigh heavily with governments tied to electoral cycles. As the nature and direction of TVET is quite strongly rooted in national culture and traditions, there are potential dangers associated with deviation from a 'path' or line of least resistance (see Green, 1990, for more discussion of this issue).

Many governments are committed to upskilling and to the 'knowledge economy', whether or not this is an assumption that is useful for policy-making (Wolf, 2011, pp.28–30). Governments also have at their disposal various instruments that enable them to exert a positive influence on supply. The most effective are perhaps subsidizing employer-provided TVET and providing TVET directly. Both of course are expensive. There is also the possibility that demand will not match supply, and the 'deadweight' problem, in which state-funded provision of TVET replaces rather than supplements employer-funded provision (Welters and Muysken, 2004).

Other key areas in which governments can make a crucial difference include enhancing the quality of TVET through ensuring there are high-quality curricula, qualified teachers, suitable investment in buildings and equipment, stable and comprehensive governance and a recognized and trusted qualification structure. For a useful discussion of this issue, see Watters (2009).

Governments need a broad economic strategy that will ensure transition from an LSE to an HSE. This does not sit well with the contemporary neoliberal economic orthodoxy, which favours a free market and minimal state intervention. However, it is worth pointing out that many developing (and some by now quite developed) economies have ignored economic orthodoxy by adopting a Listian strategy. This involves protecting nascent sectors of the economy through trade barriers while at the same time developing economic potential (productive powers) through investment and regulation.

The attractiveness of TVET to employers is probably the key to the attractiveness of TVET to individuals and to other sections of society. The stance of governments is, however, crucial to the stance of employers. To make TVET attractive in countries that still depend primarily on an LSE, it is crucial that governments succeed in co-opting individual employers and employer associations into a high-skill demand-based strategy for TVET. (For recent comments on the UK case, see Lanning and Lawton, 2012).

## 4.4 Lack of demand from potential TVET students and their families

A number of factors can lead to a lack of demand for places on TVET courses. The attitudes of potential TVET students and their families cannot however be considered in isolation from the attitudes of employers, governments and other players in the economy.

There is naturally a close relationship between employer demand for TVET qualifications and individual demand for TVET courses. Individuals might choose to enrol in TVET for more than one reason, particularly if the target TVET qualification is considered desirable for broader educational reasons, as well as useful in the labour market. But at the heart of the attractiveness of TVET to individuals is the question of whether it will lead to a well-paid job. This has an impact in turn on its attractiveness to parents, trade unions and governments; and it depends, of course, on whether employers are willing to pay a premium for TVET course graduates.

This is sometimes called a 'double demand' issue with VET: employer demand is needed to unlock individual demand, but individual demand also depends on a healthy OLM in the relevant area. When this exists, employers in turn are more motivated to invest in TVET.

Another issue of great importance for individuals and their families is the status of TVET courses and qualifications. When an activity is perceived to be of low status it is likely to be seen as unattractive. As was discussed in Section 3.1, some of the factors that contribute to the low perceived status of TVET have deep cultural and historical roots which may be difficult to deal with. We can, however, make some fairly confident observations about these issues. Remuneration and status are closely related, although the relationship is not a linear one. Generally speaking good remuneration for those who have taken part in TVET is more likely to increase its status and attractiveness than relatively poor remuneration (see Ashton and Green, 1996, ch.1; Becker, 1993, for discussions of HCT). So it is necessary to consider ways of countering both the cultural factors and the remuneration issues involved. It would be a step towards removing the lack of attractiveness of TVET to individuals if employers demanded more of it, but this is by no means a full solution.

A key factor for individuals and their families is the existence of alternatives to TVET. The most significant of these is the possibility of transition into HE, particularly in those countries, like the USA and the United Kingdom, where cohort participation in HE is well above 40 per cent. Governments often use HCT to emphasize the economic benefits to participants of the HE route, and this results in a comparative downgrading of the attractiveness of TVET. Direct entry into employment can also be attractive because of the immediate prospect of earning that it offers. HE, apprenticeship and college-based VET are all likely to mean that participants earn less (if anything) in the short term. A labour market that has relatively little demand for skills and qualifications is likely to make direct labour market entry a tempting option for many. Such a labour market is also likely to have a negative motivational effect on those still at school who have little or no interest in entering HE.

Finally there is the option of non-participation in education, TVET or employment. There is little evidence to suggest that this option is seen by many as attractive in itself, but it may appear less unattractive to some school-leavers than alternatives such as transition schemes into TVET and further study at school. Given the large numbers in many countries who are not in employment, education or training (NEET), this is not an option for young people that can be ignored by governments, many of which are at a loss over how to cope with it.

As was noted earlier, both Adam Smith and John Stuart Mill recognized the detrimental effect on the desire for education of immediately available remunerated labour. They proposed sanctions on individuals (Smith) or on their parents (Mill) in order to increase the relative appeal of continued education.

#### **4.5 The attitudes of schools**

Schools in many countries have traditionally had an academic ethos. Transition to employment is not a major preoccupation of their staff, nor indeed is it considered to be a major part of their mission. (See Williams, 2007 for an illuminating discussion of this traditional view of schooling.) In those countries where mass secondary education leads, not to higher education, but to the labour market, the emphasis has tended to be on providing as good a secondary education as possible before

the pupils enter general labour markets as unskilled or semi-skilled labour. Those who are destined for an apprenticeship are generally able to make arrangements for employment without too much help from their school.

Schools' knowledge of the labour market for their pupils and their ability to provide specific links to employers have tended, in many countries, to be limited, although this is not the case in many European countries, where careers advice is very well developed (see e.g. Tritscher-Archan and Nowak, 2011 on Austria). Careers departments often lack the expertise to provide the kind of detailed advice and connections that an individual pupil might need in order to gain an apprenticeship or the appropriate kind of course at a college (Watters, 2009, s. 3.7). The increasing difficulty of this transition in developed countries has been exacerbated by the tendency of some countries (such as the United Kingdom) to run down general careers provision and concentrate on the needs of those with academic difficulties (CEDEFOP, 2011).

This has not been such a problem for countries where sections of the secondary school system have a strong labour market orientation. Germany and France for example have vocationally oriented schools, in Germany at lower as well as upper secondary level. In these countries TVET has a dual value (as general education and for the labour market), and the school leaving certificate tends to be a requirement for enrolment on a TVET programme, providing both schools and pupils with an incentive to prepare for appropriate programmes. But this type of schooling is by no means universal, and there is debate over whether the lower secondary phase in particular should be unitary. However, given that entry into TVET increasingly relies on a threshold of academic success, it could be a critical role for schools to make clear the close connections between academic success and entry into TVET and on into employment.

## 5 Strategies for increasing the attractiveness of TVET

Now we have discussed obstacles to making TVET attractive, it is appropriate to look at ways in which decision-making might be reconfigured to take its attractiveness to various stakeholders into account. Attempts to do so will necessarily have to address the question 'attractiveness to whom?'

### 5.1 Decision-making on TVET

The general thrust of research into the attractiveness of TVET suggests that there are two critical loci for decision-making on VET: government and employers. Without the full engagement of each and their extended collaboration it is difficult to make decisions that can be put to good effect.

Recent work by the Organisation for Economic Co-operation and Development (OECD) (2011) suggests that governments need to take the initiative in putting into effect such decision-making procedures. This is best done by establishing durable structures that engage employers and other social partners such as trade unions and regional government (e.g. OECD, 2011, p. 31 on England and Wales). Such structures should be capable of operating at regional and local as well as at national level, and should make joint decision-making and implementation a regular and frequent, rather than an occasional matter. Governments need to establish an institutional, and if necessary a regulatory, framework in which such decision-making can take place and be effective. Such joint decision-making and the joint carrying through of decisions jointly arrived at should promote mutual trust and consensus-building, even if it may be necessary for the state on occasions to promote and initiate regulatory measures where it is not possible to achieve consensus (OECD, 2011, p. 31). Governments should also consider setting up a central body to commission and conduct research into TVET (such as the German Federal Institute for Vocational Education and Training, BIBB) in order to facilitate informed decision-making. Governments also have an



important role in making sure that subnational institutional structures are not so heterogeneous that they prevent effective decision implementation at national level.

There is no one model for such state-sponsored social partnership arrangements, but they can be found in different forms in a range of European countries. They are particularly important for apprenticeship-based systems like the dual system in Germany, where detailed coordination and supervision as well as high-level decision-making are vital to the successful functioning of TVET.

## 5.2 The aims of education

There is understandably much concern about making employability an aim of a public education system, for fear of diminishing the educational offer. While this concern is understandable, it is not impossible to allay it. One way of addressing the issue is the French one of making explicit the intention to develop young people as individuals, workers and citizens (Méhaut, 2011). This intention is then to be realized in all programmes of education, whether academic or vocational. It follows therefore that in France, TVET programmes have a responsibility to develop individual and civic capabilities as well as those skills and abilities directly relevant to employment. This may seem a trivial matter, but the fact that it is stated that TVET has a significant educational element which extends beyond the immediate demands of the workplace makes TVET an educational activity, and this requirement has to be embodied in the aims, curriculum, pedagogy and assessment arrangements of TVET programmes.

Of course such aims need to be realized in practice as well as in theory, and TVET qualifications need also to be recognized within the education system for progression purposes. But this is unlikely to happen without the first step, which is one of political leadership. A general formulation of this kind has the advantage of legitimizing vocational aims, without at the same time suggesting that there are different classes of citizens, some with an educational destiny and others with a training destiny.

### **5.3 An active state?**

Such intentions must be followed through with the provision of qualifications with a genuine dual value, both in the labour market and in the education system. The following policy steps probably need to be taken to achieve this:

- Permeability of qualifications, including firm progression routes through accreditation of prior experiential learning (APEL)/initial vocational education and training (IVET) through to continuing vocational education and training (CVET) and to HE. By 'permeability' is meant the ability of a qualification to provide, through the individual attributes of the holder, progression to more advanced qualifications.
- Recognition of the importance of theoretical, general and civic knowledge and ability within the aims and curricula of TVET programmes. This probably needs to be done by making them assessable elements in TVET programmes.

Such measures need legislation and regulation. However the potential role of the state does not rest there, particularly if a significant reason that TVET is not attractive to individuals is that it is not particularly attractive to employers either. The state's role is more complex in this area, and may include the development of an economic policy that includes the provision of TVET in order to move up the value chain or to establish a HSE. The government might also, even if these objectives are not recognized, need to attend to the rural economy and to ensure not only that young people in rural areas have access to TVET, but that they are offered the same quality of provision as urban populations. Rapid economic development can threaten neglect of the rural economy and lead to an underestimation of its potential for development. Environmental sustainability depends to a large extent on the continuing viability of rural economies.

It is also necessary to take proper account of those sections of the economy where informal TVET has been the dominant mode of entry into employment, through either informal participation or traditional apprenticeship. Traditional rural crafts, manufacturing, fisheries and agriculture are all likely to fall into this category. Changes in rural life make the stable, if often rudimentary, arrangements of the past increasingly untenable. Governments need also to consider whether TVET for rural

communities should build systematically on advances in scientific understanding in order to develop productivity and efficiency without at the same time compromising the stability of existing systems.

Governments are advised to set up social partnership arrangements along the lines suggested above. Where necessary, such measures may also need to be supplemented by forms of regulation such as the institution of a levy-grant system and licences to practise for a range of occupations. It will also be necessary to set up financing arrangements so that there is an equitable division of responsibilities between employers and the state for different elements of TVET. It seems reasonable, for example, for the state to pay for the civic and individual elements of TVET and employers to pay for the technical and directly vocational elements (see Wolf, 2011, p. 123 on the employer contribution to apprenticeship funding).

In apprenticeship systems there is a need for a sliding scale of remuneration that recognizes the gradually increasing productivity of the apprentice, in order that financial responsibility can be distributed equitably between the individual learner and the employer. In non-apprenticeship systems this will need to be done through the taxation system (Foreman-Peck, 2004).

There is little doubt that the role of the state is crucial in providing the normative, regulative and financial framework for TVET to become attractive. There is little doubt also that although many countries accept this by the conscious promotion of what List called a country's 'productive powers', many others, particularly those where neoliberal views predominate, will find this a much more challenging prospect.

The state has a role not just to instigate change, but also to ensure continuity. TVET is unlikely to become attractive to employers, individuals and parents if it consists of complex, unstable and ever-changing structures that are difficult to understand. Stable governance and the provision of clear well-understood routes and qualifications are all critical to ensuring long-term attractiveness. In addition, it is desirable for the structures to exist at arms' length from the government, as they then become relatively immune to short-term political needs. As was suggested earlier in this paper, social partnership arrangements tend to promote such stability while also giving important and permanent elements in the society a determining role in running the system.

## **5.4 The role of parents, families and communities**

The state is not omnipotent; it does not have the power to change perceptions on its own. However, the kinds of structural reforms suggested, together with the use of well-established methods of information dissemination, can do a great deal to begin to alter entrenched perceptions about the value of TVET, particularly if the information really does reflect substantial change. It will be important that reform of TVET structures is also accompanied by changes in the labour market, such as financial recognition of qualifications, the opening up of opportunities across occupations, and the development of progression routes. But these, as argued, need to be based on attention to structural issues in the first instance.

These considerations also apply to schools and associated forms of careers advice and guidance. Unless there are staff in schools who are themselves properly educated about the state of TVET and the real opportunities on offer for young people, it will be difficult for them to play their full role in making it more attractive. There are a number of ways in which schools can make TVET more attractive without compromising their central role.

### **Practical subjects**

It is important that schools do not lose sight of their role of providing a high-quality basic education for everyone. But it is also a consequence of the tripartite set of aims mentioned above that practical as well as academic objectives are pursued, both for individual and for vocational reasons. The argument here is not for 'prevocational education', but for something more broad. Subjects such as woodworking, metalworking and pottery provide opportunities for a more rounded development of the individual, while at the same time providing students with the skills, discipline and sensibility that will stand them in good stead in TVET and in the workplace. There is no reason why such subjects should not find a place on the secondary school curriculum. If teachers with relevant industrial experience can be found, then so much the better.

## **Education about the labour market**

A significant element of what schools should do is to provide pupils with information about what kinds of employment are available, particularly in the locality, and what students will require in the way of qualifications in order to enter each field of employment. Such work should be a proper part of the role of specialist qualified teachers.

## **A proper careers service**

Whether the careers service is mainly based in schools or outside them, advice as well as information about the labour market and its requirements needs to be available to students and their parents from at least two years before compulsory schooling is completed. Specialist careers advisers should be expected to spend considerable periods out of school in order to carry out detailed first-hand research on the TVET, employment and career opportunities available.

It is important that this kind of service is also available to young people who have already left school and who are in or are seeking employment. Careful thought needs to be given to the organization of such services and the ways in which they maintain good links with schools, TVET institutions and employers.

These various considerations point unavoidably to the central role of governments in promoting the attractiveness of TVET to the other major stakeholders in the long term. It is most important, however, that this role is best to be understood as an enabling and at times as a regulatory one, rather than one that involves prolonged and direct intervention in economic activity, except where such intervention is a central part of the government's existing economic policy.

## **6 Recommendations for improving the attractiveness of TVET**

**T**here follows a summary of the most effective measures that can be taken in the short term to improve the attractiveness of TVET.

### **6.1 The wider use of APEL**

APEL has an important role to play in encouraging individuals to gain accreditation for what they already know and are competent at. Such a measure is the more likely to be effective if it is coupled with access to qualifications that allow for progression in the labour market and in the educational system (Butterworth, 1992).

### **6.2 Greater permeability and dual value of qualification routes**

What the French call the 'dual value' of qualifications (in education and the labour market) is further enhanced through the provision of routes to further qualification that are relevant for both the labour market and education. Germany, for example, has taken steps to promote permeability to higher education, and has long had routes that allow the holders of initial qualifications to progress within their occupation up to and including the Meister level, which includes expertise in both business practice and pedagogy (Hanf, 2011). In order to be permeable within the education system it is important that TVET qualifications contain a significant technical and general educational element. This in turn is likely to make them more attractive to individuals. Schools could have a significant role to play in emphasizing the importance of academic success for future access to high-quality TVET.

### **6.3 Apprenticeship schemes with a strong educational and personal development element**

Apprenticeship has the potential to be attractive to young people because of the employment status of the apprentice and the realistic workplace conditions that it presupposes. By itself, however, it cannot provide either dual value or a broad occupational capacity. It is best located within an educational as well as an employment framework through an integrated and articulated programme combining practical experience, technical expertise, general and civic education, and personal and social development, as in the dual apprenticeship systems of Germany and some other northern European countries. Although this type of provision is currently to be found primarily in developed countries, others on a development road could consider it, not just for their industrial sector but as a means of maintaining and integrating rural and craft economies into the society as it evolves.

A further virtue of the dual system is that it can be combined with study at the HE level, resulting in programmes that lead to qualifications at higher technician and technologist level. Such programmes can be found, albeit in small numbers, in the English Higher Apprenticeship framework.

### **6.4 Quality, including a stable institutional framework and widely recognized and respected qualifications**

A good framework for TVET is likely to be compromised if the experience of learners and of employers is negative. The quality of qualifications, curriculum, pedagogy and assessment are all therefore of great importance. A good national framework, together with robust regional and local forms of oversight and accountability, is also important. It is highly desirable that TVET teachers are properly qualified and experienced, and work within a framework of clear standards. However, it is also vital that the framework of TVET enjoys stability so that it can evolve along pathways familiar to participants, and so that routes and qualifications are recognized by all stakeholders (Watters, 2011). Governments must resist the temptation to change TVET structures for short-term political benefit, and should plan for robust and long-term stable structures. Last, but not least, qualifications should contain substantial

theoretical content to facilitate permeability and broad occupational capabilities (Wheelahon, 2010).

## **6.5 Improved guidance**

This issue has already been mentioned, but it is easier to implement within a stable and established framework with procedures for ensuring judgements about quality, and means of making clear to the public and other stakeholders what the criteria are. Good provision within schools and good coordination between schools and enterprises are essential for guidance to work properly.

## **6.6 Image (including government campaigns)**

No image-making will be able to rescue an inadequate TVET system. However, much can be done by governments and other stakeholders to show young people and their parents what benefits can be obtained from a high-quality TVET system. Governments also have a responsibility to educate employers about the potential benefits of investing in TVET, and taking part in state-assisted programmes such as dual apprenticeship. As remarked earlier, the image of TVET amongst employers is also inadequate.

Improving the attractiveness of TVET is a complex project. Particular attention needs to be paid to those factors that are most likely, if they are addressed, to improve other factors contributing to the attractiveness of TVET. The central role of governments in setting quality frameworks and engaging employers in increasing their ambitions has already been mentioned. Governments are not capable of improving TVET by themselves. They need employer commitment. However, pressure from employees and trade unions may also serve to reinforce the will of employers to improve TVET. Ideally, social partnership arrangements which also involve government are most likely to make progress. It is however essential that governments support TVET not only with rhetoric, but with a clearly understood commitment to action.

A commitment to developing stable, good-quality and easily understandable structures is vital. It may be that long-term cross-party consensus will be needed to



make this happen, and here social partnership can play a significant role. However, sometimes governments need to be courageous and take steps which may be unpopular with powerful sections of their societies. Moving from an LSE to a HSE may be helped by exhortation and subsidy, but ultimately it may involve making changes to the taxation and regulatory framework in which TVET operates. This is when governments who are serious about improving the attractiveness of TVET may have to prove their mettle.

## Acronyms and abbreviations

APEL	accreditation of prior experiential learning
BIBB	Federal Institute for Vocational Education and Training, Germany
CVET	continuing vocational education and training
HCT	human capital theory
HE	higher education
HSE	high skill equilibrium
ILM	internal labour market
ISCED	International Standard Classification of Education
IVET	initial vocational education and training
LSE	low-skill equilibrium
NEET	not in employment, education or training
OECD	Organisation for Economic Co-operation and Development
OLM	occupational labour market

TVET	technical and vocational education and training
VHE	vocational higher education

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