Financing Technical and Vocational Skills Development Reform

23

Robert Palmer

Contents

R. Palmer (✉)
University of Nottingham, Nottingham, UK
e-mail: rpalmer00@gmail.com

S. McGrath et al. (eds.), *Handbook of Vocational Education and Training*,
https://doi.org/10.1007/978-3-319-94532-3_42

Abstract

Many low- and middle-income countries face strong pressures to expand their technical and vocational education and training (TVET) systems and enhance their quality. Funds are obviously needed to achieve this, but while there tends to be a lot of focus on how much funds are needed (or, rather, the focus is usually on how little funds TVET currently receives), there tends to be much less of a focus on how TVET funds are allocated within the sector and the role that various allocation approaches can have in incentivizing TVET reform priorities (e.g., access, equity, quality, relevance, employment outcomes). This chapter addresses the following key questions: Where does TVET funding come from? How are TVET funds spent? How are TVET funds currently allocated? What roles can financing play in achieving TVET reform and national policy objectives? How can countries create the right environment for TVET financing?

Keywords

TVET financing · TVET funding · TVET financing mechanism · TVET private resources · TVET public resources · TVET expenditure · TVET resource allocation

Introduction

Many low- and middle-income countries face strong pressures to expand their technical and vocational education and training (TVET) systems and enhance their quality, at the same time as facing spending pressures on basic and higher education. As this demand increases, the need for sustainable financing for TVET becomes more urgent. However, there needs to be greater awareness that countries don't just need sufficient and predictable revenue streams to fund training programs, but perhaps just as importantly they need to have in place appropriate financing mechanisms that are themselves strongly linked to achieving reform policy objectives (e.g., of making TVET systems more accessible, equitable, efficient, demand-driven, responsive, and relevant). In other words, countries don't just need to be concerned with raising enough funding to finance TVET reform, they need to make sure that the financing approaches themselves promote the goals of TVET reform.

This chapter aims to address the following key questions with regard to the financing of technical and vocational skills development reform:

- Where does TVET funding come from?
- How are TVET funds spent?
- How are TVET funds currently allocated?
- What role can financing play in achieving TVET reform and national policy objectives?
- How can countries create the right environment for TVET financing?

Where Does Funding Come From?

In most low- and middle-income countries (LMICs), TVET funding typically comes from three main sources: government budgets, student fees, and the private sector. In addition, other sources might include employee contributions, private donations, income generating activities, and external assistance (e.g., official development assistance (ODA) and official loans). Funding portfolios of TVET providers across countries and across types of provision varies, but in general for the majority of public TVET providers in LMICs, government funding is the most significant source of funds, while student fees are the most significant source of funds for private providers. Meanwhile, training for employees in private firms is almost entirely paid for by that firm.

Government Funding: Via Grants and Direct Payments

In most LMICs, government funding is the most significant source of funds for public TVET providers. Salaries of most (sometimes all) staff working in public TVET providers are typically paid directly by government. Recurrent costs are typically borne by either an annual budgetary payment or by ad hoc or recurrent monthly grants.

TVET Funding from Official Development Assistance and Other Official Flows

Official Development Assistance

Between 2002 and 2015, official development assistance (ODA) to vocational training ("Vocational training" as defined by the DAC's Creditor Reporting Service (CRS) code 11330 which covers both formal and informal pre-tertiary TVET (OECD 2016). ODA to TVET via the DAC CRS (cf. King an Palmer 2011; Palmer 2015a)) in developing countries increased overall by 215%, from US$167 million in 2002 to US$527 million in 2015. Africa and Asia accounted for the bulk of this increase (Fig. 1) and in 2015 ODA to vocational training in Africa and Asia accounted for 34% and 48%, respectively, of all ODA to vocational training to developing countries (http://www.stats.oecd.org/).

Regarding ODA support to tertiary and professional-level TVET (OECD CRS code 11430 "Advanced technical and managerial training") over the 2002–2015 period, total disbursements to developing countries were in the US$100–150 million range (except for a peak in 2003 and trough in 2004–2006) (Fig. 2).

Reliance upon ODA for TVET, most of which is grants in-aid, varies considerably among LMICs; there is a marked difference between the comparatively low level of dependence across most East Asian countries (with the exception, perhaps,

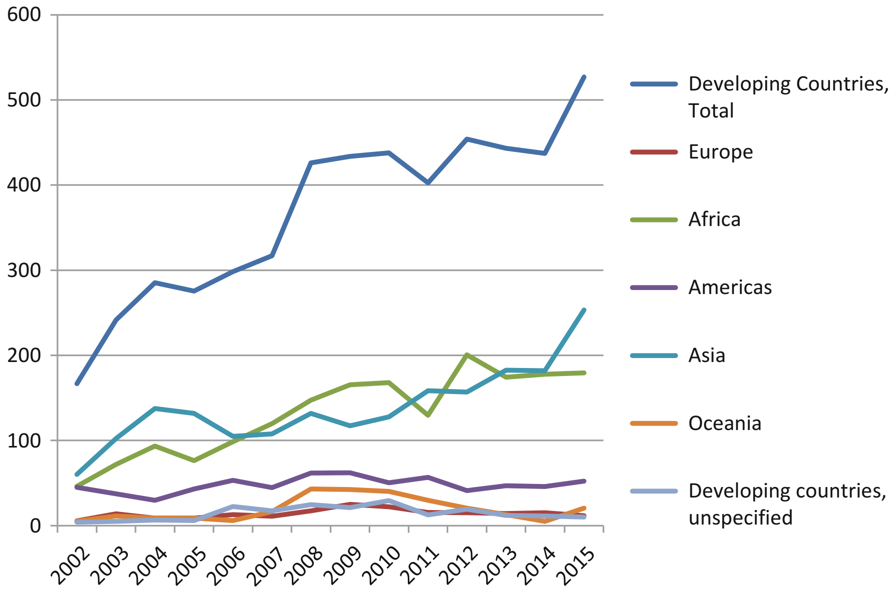
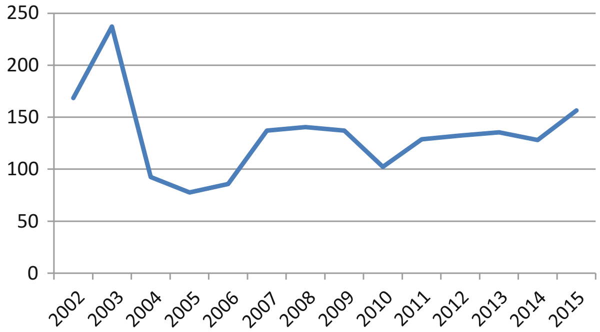


Fig. 1 ODA to vocational training, 2002–2015 (Constant 2015 US$ millions). (Source: based on data from http://stats.oecd.org, accessed 20 Dec 2017)

Fig. 2 ODA to tertiary and professional-level TVET, 2002–2015 (Constant 2015 US$ millions). (Source: based on data from http://stats.oecd.org, Accessed 20 Dec 2017)

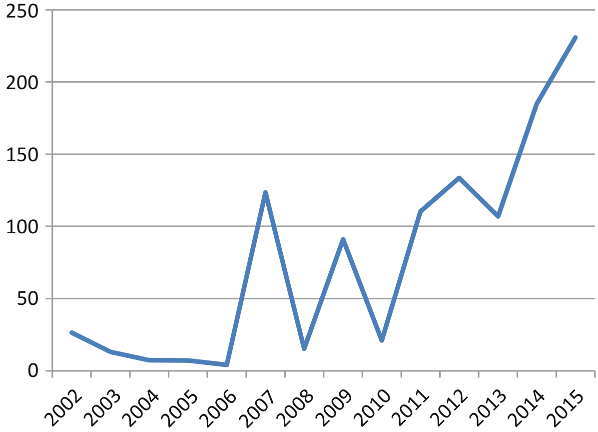


of Cambodia, Lao PDR, Myanmar, and Timor-Leste) and South America and the much higher levels in some of the Pacific Island and sub-Saharan African countries.

Other Official Flows

Certain types of official sector transactions are not regarded by the OECD-DAC as ODA as they do not meet the ODA criteria and are therefore excluded from ODA tables. These are classified by the OECD as "other official flows" (OOF). OOF are "Transactions by the official sector with countries on the DAC List of ODA Recipients which do not meet the conditions for eligibility as Official Development

Fig. 3 OOF to vocational training, 2002–2015 (Constant 2015 US$ millions). (Source: based on data from http://stats.oecd.org, Accessed 20 Dec 17)



Assistance, either because they are not primarily aimed at development, or because they have a grant element of less than 25 per cent" (OECD 2018).

OOF to vocational training have increased significantly since 2002 and in 2014–2015 averaged US$208m per annum (up from an average of US$20m per annum 2002–2003) (Fig. 3). About half of the OOF to vocational training in the 2014–2015 period went to South America, with 95% of this to Argentina and Colombia (both IBRD loans). About 40% of all OOF to vocational training went to Asia (with most to China, India, and Sri Lanka – a mix of Asian Development Bank and IBRD loans). In Africa, the only significant OFF in 2014–2015 was to Morocco (IBRD loan) (http://www.stats.oecd.org/).

OOF to tertiary and professional-level TVET remains relatively insignificant for the majority of countries, despite there being an overall increase from an average of US$20m per annum in 2002–2003 to US$42m per annum in 2014–2015; only a handful of countries (in 2014–2015) benefit from OFF to this higher level of TVET, most notably Mexico, Panama, Argentina, and Colombia (http://www.stats.oecd.org/).

TVET Funding from Private Resources

Funding for TVET from private resources can come in the form of students' fees, enterprise financing, private training provision by institutions, faith-based and NGO donations, and the sale of goods and services. These are examined in brief below.

Student Fees

Most public and private TVET providers appear to levy fees, but their contribution to overall provider revenue varies considerably between and within countries, and according to type of provider.

Enterprises/Industry

Funding for TVET from formal sector private enterprise and industry can take several forms, including private firm contribution to formal institution-based TVET provision (either in cash or in-kind), private sector funded training funds, and the firm-financed training for own employees (either in-house or outsourced). In addition to formal sector firms' contributions, private enterprises operating in the informal economy are also themselves providers, and self-funders, of training for their employees, though most of such training is (by definition) informal and on-the-job.

Enterprise Contributions to Formal Institution-Based TVET Provision

Typically, financial cooperation between private enterprise and formal TVET institutes is not significant in many LMICs. However, there is some collaboration between private enterprise and formal TVET institutes but often little indication of the extent or scope of this cooperation. Such cooperation might take the form of student attachments/internships in enterprises (perhaps part of a more formalized "dual training system"), as well as employer participation in curriculum development or participation on institution governance boards.

Private Enterprise-Financed Training Funds

Many large and small LMICs across the world operate private enterprise-financed training funds. Enterprise training funds are intended to provide incentives to increase in-service training of workers within enterprises (Johanson 2009). They are typically financed by an industry training levy, a dedicated tax on enterprises principally used to raise funds for training purposes. They are typically based on a contribution of a certain percent of a company's salary bill, with the levy amount decided either by government (in consultation with industry) or via a more collective agreement. The levy is normally paid by the company itself (not the employee). The broad rationale for them is that: firms receive benefits from training (e.g., higher productivity of a trained worker, increased earnings) for which they should pay at least in part; firms, if left to their own decision-making, may under-train; the incentive for enterprises to invest in training for their employees is lacking when they fear that these employees might be lured away by another firm; and training funds raised from a levy help to provide some predictability in the overall funding of training.

LMIC interest in establishing training funds remains high. In addition, many development partners try to stimulate the setup of such funds in LMICs through an initial injection of external donor financing (e.g., DFID and SDC in Bangladesh). Where such funds are set up as part of development cooperation activities, and where donor funding (grants/loans) makes up the bulk or all of the initial source of funds, long-term sustainability of the fund can be a challenge. Ensuring government ownership and buy-in to the fund during setup is key, as is government's role in identifying sustainable funding sources, and enacting required legislation.

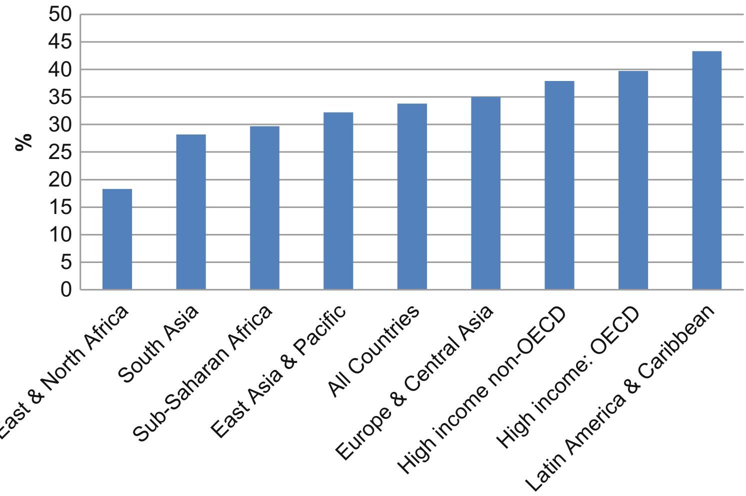


Fig. 4 Percentage of firms offering formal training, by region/country grouping. (Source: http://enterprisesurveys.org/, Accessed 21 Dec 2017)

Where countries do decide to explore the introduction of a training levy, several points could be kept in mind (cf Horne 2014), including the purposes which it is desired to achieve; whether a training levy is apt for such purposes and if so which type of levy; how to build support for a levy among stakeholders, including firms and trainers; the method of collection, its likely feasibility in the local economy, and the cost; the balance between giving a general boost to training with discretion on types of training left to firms and targeting specific training needs; how to build in ongoing review of the scheme and periodic evaluation of results; how to ensure transparency of collection and allocation; and the governance of the levy (who controls the money). For a discussion on private sector training funds in the Pacific, see Palmer (2015b).

Firm-Financed Training for Own Employees

Formal enterprises in LMICs also represent an important component of supply in training markets and directly finance training activities, including through enterprise-based training (in-house professional development, apprenticeships) or paying the fees of external providers.

On average, formal training by firms in high-income countries (38–40%) and in Latin America and the Caribbean (43%) is much more common than the world average rate (of 34%). Meanwhile, formal training by firms in the Middle-East North Africa (MENA) region averages less than 20% (Fig. 4).

The regional averages hide often wide intra-regional variations:

- In the MENA region, only 3% of firms offer training in Jordan, while 29% in Tunisia do.
- In sub-Saharan Africa, only 9% of firms in Sudan offer training, while 55% in Rwanda do.
- In East Asia and Pacific, only 2% of firms offer training in Timor-Leste (the lowest rate in the world), while 79% in Samoa and China do (joint highest rates in the world).
- In Latin America and the Caribbean, only 2% of firms in Suriname offer training (second lowest rate in the world), while 74% in Ecuador do.

Training for Informal Sector Enterprises

International experience shows that the smallest enterprises, especially those operating in the informal economy, are the least likely or least able to be able to provide their own training or to invest in it.

Meanwhile, it is known that informal economies in many – but not all – LMICs are larger than formal economies. For example, as a percentage of nonagricultural employment, informal employment in East and Southeast Asia (excluding China) is 65% – almost identical to that of sub-Saharan Africa (66%) (Vanek et al. 2014).

The sheer scale of the informal economy in many LMICs, combined with what is known about informal training in some regions (e.g., West Africa, South Asia), suggests that in many LMICs in other regions, which have large informal economies, informal on-the-job training and learning is taking place. More research on the financing of training in the informal economies would be very useful.

Faith-Based and NGO Donations

Direct funding from mosques, churches, other faith-based organizations, and NGOs appears to be a relatively insignificant current source of funding for the majority of TVET providers. However, in some LMICs, this understates the essential role that this has played in establishing TVET providers.

Sale of Goods and Services

The sale of goods and services is also a relatively insignificant current source of funding for the majority of TVET providers. There are exceptions to this generalization of course.

How Are TVET Funds Spent?

TVET Expenditure: Recurrent and Capital

The bulk of recurrent expenditure among most TVET providers in LMICs typically goes on staff salaries and other overhead costs. In many cases, TVET teachers are remunerated from the national payroll, not from TVET institutes directly.

Expenditure on scholarships and stipends as a traditional form of student support is not uncommon and takes many forms across countries (ranging from a subsidy for all to very targeted payments based on clear criteria). Of course this does not apply to all LMICs.

With the majority of expenditure on salaries and running costs, there is often little left for staff development, training materials, buildings, and equipment.

TVET Expenditure and Equity

A fundamental aspect of a successful TVET system is the access it provides to trainees from a wide range of social backgrounds, ages, and geographic areas. The majority of all LMICs are likely to exhibit some degree of inequitable access to TVET, mainly related to gender, geography, and disability – though the severity of this will vary and needs research. Various forms of financial assistance schemes aimed at mitigating disadvantage exist.

Expenditure (In)efficiencies: What Unit Costs Tell Us

Unit costs can illustrate inefficiencies in TVET systems. High unit costs might signal inefficient use of resources or the higher costs to reach certain groups. Differences between cost per student and cost per graduate for some courses indicate inefficiencies related to course completion: the narrower the difference, the more likely that providers are achieving high course completion rates.

How Are TVET Funds Currently Allocated?

TVET financing mechanisms (Box 1) have the potential to influence the achievement of national TVET reform objectives related to effectiveness (e.g., quality of training and labor market outcomes of trainees), efficiency (e.g., outputs per unit cost), and equity (e.g., the degree to which people from different backgrounds and locations have access to good quality training). This section briefly examines the financing mechanisms that are currently used in various LMICs.

Box 1 What Do We Mean by TVET Financing Mechanisms?
TVET financing mechanisms refer to:

1. The administrative ways funds are allocated, e.g., grants, scholarships, loans, training vouchers, grants from training funds, etc.
2. The criteria applied to these ways – e.g., targeted/untargeted, directly linked (or not) to policy objectives. Financing mechanisms can be strongly linked to achieving policy objectives of making TVET systems more accessible, equitable, efficient, demand-driven, responsive, and relevant.

The diversity, and often fragmented governance, of TVET systems results in a fragmented approach to TVET financing. In many LMICs, the TVET system remains fragmented with multiple government ministries on the one hand and a private training market, firm-based enterprise training and donor-funded ventures on the other. These, and other, multiple sources of TVET funding are allocated to multiple TVET providers via multiple financing mechanisms. Where countries have fragmented TVET systems, with weak TVET governance and coordination arrangements, they inevitably also have fragmented TVET financing arrangements – which lead to inefficiencies.

Direct Public Payments to TVET Institutions

The financing mechanisms used by government to transfer funds to TVET providers can affect institutional behavior and the way funding is used (Johanson and Adams 2004). For example, funding can be based on historical expenditure (e.g., a grant to cover training materials, equipment, logistics, etc.), where no account is taken of performance and grants are simply allocated based on the previous year's expenditures; inputs (e.g., the number of students), with or without incentives to increase student enrollment; outputs (e.g., the percentage of students graduating or achieving a specified minimum standard), where incentives exist to improve such metrics; or outcomes (e.g., the percentage of graduates finding employment or becoming self-employed within 6 months of graduating), again where incentives exist.

In many (perhaps most) LMICs, historical allocation and input-based funding approaches (which are not linked with any incentive) are the dominant modes of direct public operating grant payment to providers, and the ways these function serve to reinforce a supply-driven training model. In other words, "most public funds are transferred and spent without regard for performance. Good performance reaps no reward, and poor performance suffers no penalty" (ADB 2014: 50).

There is little evidence of output-based financing mechanisms being used in many LMICs – e.g., little attention is paid in financial planning or budgeting discussions to course completion rates, unit costs, graduate outcomes, or employer satisfaction – though there are of course exceptions (many of which seem to currently be attached to donor-funded TVET interventions rather than "home-grown").

Financing Policies and Incentives at Provider Level

Financial system barriers inhibit flexibility, expansion, and sustainability at provider level. Many LMICs appear not to have devolved much financial authority to managers of public training institutions; decisions on spending are centralized, and most providers are unable to retain revenue from tuition or fee for service at the institution.

Where fees contributed by students are not retained by public TVET providers, there are limited incentives at provider level to increase student numbers. Similarly, where providers are not allowed to retain all (or the majority of) profits from the sale of goods and services, there is limited incentive to generate funding from such sources.

By contrast, private TVET providers that retain fee income have a direct incentive not only to increase student numbers but also to ensure that the training delivered is seen as relevant. Similarly, public and private providers that retain income from the sale of goods and services have a direct incentive to generate more such funds.

Financing Mechanisms Related to Individuals: Loans, Scholarships, and Stipends

The existence of student loans to help individuals to finance TVET study appears limited, but there is insufficient information on this to be able to say for certain.

Scholarships and stipends to study TVET exist in many LMICs. While they have some equity benefits, some lack alignment with labor market needs and can come with high actual and opportunity costs.

Financing Mechanisms Related to Private Enterprise

Allocation Mechanisms of Private Enterprise-Financed Training Funds

It was noted above that many LMICs operate private enterprise-financed training funds, with most of these funds resourced via a levy. These training funds typically have three ways by which accrued funds are allocated (Johanson 2009):

- Cost reimbursement schemes – approved training costs are reimbursed up to limit of levy paid.
- Levy-grant schemes – grants for enterprises to fund training, based on specific criteria (not only levy contributors).
- Exemption-based schemes (also known as train-or-pay) – liable enterprises are exempt from paying the training levy up to the amount they spend of training directly.

Training funds, of course, can be hybrid, using more than one such allocation scheme.

Development Partner Financing Mechanisms and Modalities

The majority of all development partner financing for TVET across LMICs is in the form of grants (transfers in cash or in-kind for which the recipient incurs no legal debt). Project-type interventions are by far the most common financing modality used.

Public-Private TVET Financing Mechanisms

Public-private partnerships (PPPs) in TVET (Box 2) serve two main functions, only one of which is directly related to financing. Typically, they serve to:

- Promote cost-sharing: Private sector resources – in the form of direct funding, in-kind support, or direct provision – complement public support for national TVET systems and are a key component of sustainable financing for TVET.
- Increase collaboration with the private sector (e.g., in directing/governance, evaluating) can help achieve TVET policy objectives (e.g., making the TVET system more demand-driven, responsive, and relevant).

Box 2 What Are PPPs in TVET?

PPPs in TVET refer to collaboration between the public and the private sectors with the objective of developing the technical and vocational skills of individuals. These skills can apply both within and outside of the formal labor force.

Types of PPPs in TVET

Public support to private training provision
- Public funds, including scholarships, vouchers, grants, and subsidies, are made available to private providers (on a competitive basis) to supply TVET.
- Governments provide public facilities to private providers to supply TVET.

Private support to public training provision
- Direct private financial contributions to public TVET system or institutions, including (but not only) as part of corporate social responsibility (CSR) – e.g., scholarships and grants.
- In-kind support from enterprises: Provision of trainee internships and public TVET staff training placements; provision (or donation) of used equipment or training materials.
- Enterprise participation in governance, planning, curriculum, and assessment (at provider/national level).

Joint public-private funding and delivery of training
- Co-funding from public and private sectors, and delivery of training by both public and private providers (or public-private providers), often brokered by an intermediary organization

What Role Can TVET Financing Play in Achieving TVET and National Policy Objectives?

As noted above, TVET financing plays an important role in leveraging TVET reform in desired directions. All LMICs have country-specific objectives and priorities and should consider a mix of financing mechanisms that can help achieve these objectives, while giving consideration to the country's enabling environment for TVET financing – and the extent to which it will facilitate or hinder the functioning of specific financing mechanisms (see later, this chapter). LMICs should also recognize that as their TVET reform objectives change over time, so their financing mechanisms need to change. Korea provides a great illustration from the East Asia region of how a country's TVET financing mechanisms have changed as national TVET objectives changed (see Lee 2016).

Policy Objective: To Use Resources More Efficiently

Try to avoid displacing private funding with public funding – a key concern in any state-supported or co-financed training scheme is to try to avoid paying for something that private individuals or companies would have paid for anyway in the absence of state support (this section draws heavily on Palmer (2015b)).

Rationalize funding – efficiencies could be created where funding was rationalized, including via incentives to providers to merge and reduce overheads, or by creating an overarching body to oversee TVET financing. Making better use of existing resources by identifying and addressing current inefficiencies (ADB 2009), including through unit cost and cost-benefit analysis, is as important as trying to increase the overall resource envelope.

Encourage an integrated training market – an approach worth considering is for a government to shift from using public finance only to fund public TVET to being a purchaser on behalf of trainees and communities and to view the training providers in the market, public and private, in an integrated way, such that public funds could support both public and private providers. Various financing mechanisms can be used to encourage an integrated training market, including, for example, the use of grants, vouchers, or scholarships that are available on an equal basis to both public and private providers.

At the national level, the establishment of a national training fund, or a national skills development fund, can also encourage the development of an integrated market (Johanson 2009). National training funds are typically financed by enterprise levies but may also be based on public subsidies or donor financing. If used strategically, national training funds can help to orientate entire TVET systems in the direction of agreed national priorities. Johanson (2009) identifies three types of training fund:

- Preemployment training funds – to create a supply of well-trained individuals in the labor market
- Enterprise training funds – to increase the incidence of training within firms
- Equity training funds – to train specified target beneficiaries (e.g., unemployed, women, youth, those in the informal sector)

The disbursement mechanisms for national training funds depend on the type of fund. For example, preemployment and equity training funds might typically have disbursement windows that are able to fund various quality-assured providers, including public and private training institutions, and specified target beneficiaries. The most effective training funds are those that are largely autonomous bodies with strong employer and worker representation and are soundly managed with clear and transparent allocation mechanisms (Johanson 2009). Sectoral, or industry-specific, training funds are an alternative to national (centralized) funding models (Johanson 2009) and may be more suited to contexts where a particular sector is dominant (e.g., tourism, extractive industries) and employers want a more sector-specific arrangement.

Aligning financial incentives with desired effects through results-based financing. Results-based financing (RBF) is an approach that can help motivate stakeholders involved in training and post-training support toward achieving specific TVET-related reform objectives. RBF rewards the delivery or achievement of specified targets through financial incentives upon verification that the predefined results have been delivered (World Bank 2015). RBF is also known as performance-based financing when it targets the supply side (inputs and outputs) and sets incentives for providers to deliver good performance. For example:

- Inputs – e.g., per student financial rewards to give incentives to increase the number of students
- Outputs – e.g., incentives linked to the total number or percentage of trainees completing training or to the percentage of trainees completing training from marginalized groups

Another form of RBF is where the financial incentive is solely linked to the outcomes, or results, e.g., incentives linked to the percentage of trainees in employment 3 or 6 months after completing a course or the percentage of trainees who pass a recognized skills test after completing course.

Some LMICs are starting to use financing approaches as a means to promote increased performance and results, though the practice is not common and often introduced or led by development partners at country level.

As noted earlier, most financing for TVET delivery in formal vocational training providers remains supply-driven (unlinked to any performance criteria); funding is provided based on numbers of enrolled students or based on historical expenditure. Such funding approaches do nothing to incentivize improvements performance or results, such as in the quality or relevance of training provision, providers' ability to reach harder-to-reach groups (e.g., women, rural communities, ethnic minorities, people with disabilities etc.), or to deliver specific outcomes.

However, there are a number of limitations and considerations to address when thinking of using RBF approaches (especially output- and outcome-based approaches) to help achieve TVET reform goals; for example, they require reliable information systems, as well as greater provider capacity and autonomy. Such conditions may not be present in some LMICs (Box 3).

Box 3 RBF in TVET: Limitations and Considerations to Address When Thinking of Using This Approach in TVET Projects

Design considerations

- **Defining "results"** – results should be concrete, measureable, and achievable within a realistic time horizon.
- Linking financial rewards to indicators creates **risks of gaming and/or cheating**.
- **Monitoring and verification may add significant costs**.
- **Government engagement and ownership** – needed to support program sustainability and scalability.
- **TVET provider autonomy** – the level of centralization of the TVET system can be an important factor in the success of an RBF program. Providers need the ability to innovate in order to seek ways of achieving agreed results more efficiently and effectively. Providers also need to be able retain any incentives linked to achieving agreed results. Thus using this modality with public providers in a highly centralized system may be more challenging, and private providers may sometimes be more suited.

Operational factors and constraints

- **Pre-financing** – most outcome-linked RBF projects require implementers to pay for the program themselves, before they are reimbursed and only when the agreed outcomes are achieved. Pre-financing may prove challenging for some providers, and such an approach may be met with resistance.
- **Capacity building** of service providers and of government ministry staff is key to RBF approaches; such capacity building may cover how to achieve expected results, financial management, procurement, results-focused program design and management, and monitoring/evaluation/verification.

Contextual considerations

- Some RBF mechanisms rely more heavily on private sector delivery; therefore countries that have more favorable policies regarding public-private partnerships may more readily be able to use such financing approaches.
- Most RBF approaches require reliable information, monitoring and evaluation, and quality assurance systems, which may need to be strengthened as part of any use of RBF approaches.

Source: based on World Bank (2015)

Policy Objective: To Raise Relevance

Restructure public provision – So that public providers have more autonomy, more incentive to respond to local demand, more incentive to perform. For example, input-based financing approaches with the provider allowed to retain tuition fees or incentives to generate and retain income through the sale of goods and services at the provider level.

Expansion of private provision of TVET – Governments could encourage such an expansion, for example, by:

- Making TVET scholarships available across the spectrum of quality-assured public and private providers on equal terms
- Offering tax incentives to promote the growth of private TVET
- Setting up a competitive fund with grant windows open to both public and private providers
- Providing indirect public financing for private TVET

Align TVET scholarships to labor market needs – Increase the number of TVET scholarships that are linked to labor market needs.

Policy Objective: To Raise Quality

Create more reliable funding streams for expenditures related to the quality of TVET – more predictable flows for expenditures such as the development of occupational standards, training packages, curriculum, and teacher training are needed.

Use competitive funds to stimulate innovation and quality improvement (ADB 2014: 44) – both public and private TVET institutions should be able to compete for funds.

Policy Objective: To Increase Access

Increased public funding of TVET is an obvious way to increase access (ADB 2014: 45), either through the supply of more places or targeted fee subsidies. This may not be possible in some LMICs.

Private provision is a powerful way to increase access among those able to afford it. "Private provision reduces pressure on public funding to pay for expansion of enrolments" (ADB 2014: 45).

Input-based financing mechanisms with the provider allowed to retain tuition fees – as noted above, these can provide powerful incentives to increase enrollment.

Policy Objective: To Promote Equity

Improving access to and completion of a quality primary and secondary school education will help make access to postsecondary TVET programs more equitable. International experience shows that the most disadvantaged young people do not make it into formal TVET programs as they drop out of formal schooling before entry. For many, affirmative actions in TVET (e.g., scholarships) may come too late to assist disadvantaged students (ADB 2014: 46). Policy makers interested in promoting equity in TVET should therefore also examine financial support policies for disadvantaged students at lower levels in the education system.

Allocate funds directly to students rather than institutions. Financial transfer mechanisms that allocate resources to institutions are less effective in closing equity gaps because the institutions rather than the individuals receive the funds. In contrast, programs that support students and their families directly are more likely to be effective in increasing participation (ADB 2014: 46). Giving vouchers to disadvantaged individuals to use in a training institution of choice is one way to do this. In contexts where vouchers are not feasible, incentivizing TVET providers to enroll/graduate disadvantaged students would be the next best option.

Enhance targeting of disadvantaged students to help them to "catch up." This might be through:

- **Better targeted scholarships/fee waivers** – targeted financial support has a key role to play in mitigating disadvantage, and policy makers might consider reviewing their approaches to scholarships, including introducing more targeted approaches based on verifiable criteria, where these do not exist. Ensuring that financial assistance measures have transparent selection mechanisms is also needed (World Bank 2016).
- **Student loans for TVET** – student loans with repayment from postgraduation earnings or mortgage-type loans could be explored on a pilot basis in many LMICs (especially those with large informal economies). However, the administrative and for income-contingent loans, the tax collection capability in LMICs may limit the use of this mechanism.
- **Work and study options** – increasing opportunities for concurrent work and study would help some disadvantaged individuals to access TVET, as they would be able to pay their way through the course. However, this approach is regarded by some as a "rather discriminatory dual-track option" (ADB 2009:12).

Policy Objective: To Mobilize Non-state Resources

Stimulate private investment in TVET (the framework for this subsection draws on Palmer (2015b)) – through incentivizing private enterprises to train own workers and contribute to overall reform efforts, encouraging PPPs, and the expansion of private provision.

Incentivizing Private Enterprises to Train Their Own Workers

- **Enterprise-financed training funds** – Many LMICs already have skills development funds that are resourced via private enterprise financing (mostly via training levies), but the experience in at least some of these countries (e.g., Fiji, Jordan, Malawi, Mongolia, Papua New Guinea, Malawi, to name a few) shows that fund functionality is often sub-optimal. Indeed, introducing such training levies may not be feasible in some LMICs, especially those with large informal economies, e.g., where countries do not have a sufficiently large formal sector to justify the costs or where tax collection capabilities (e.g., to collect payroll levies) are weak (especially for informal firms). Furthermore, convincing employers that a training levy is not just "another form of taxation, to be spent by inefficient government bureaucracy" (ADB 2014), requires clear and transparent processes regarding the objective of the levy, how the levy is collected, and how the funds are disbursed. The best levy systems are those controlled by employers (ibid). Simplifying both the (levy) collection and (grant) disbursement methods will mean that employers are not discouraged, e.g., by lengthy procedures and bureaucracy.

- **Tax incentives and education** – Tax regulations and liabilities can affect companies' decision to train workers (OECD 2014); tax incentives (typically tax credits of tax allowances) can be used as a means to encourage company investment in staff training. However, international experience suggests that tax incentives are unlikely to work well in countries where formal industry is not well-developed (and where small enterprises make up a bulk of all private enterprises) and where administrative or organizational capacity is weak (including tax collection capability) (Dunbar 2013; OECD 2014). This may imply that such approaches are not well suited to some LMICs.
- **Education and training leave in companies.** Mechanisms that regulate periods of temporary leave (paid or unpaid) from the workplace for the purpose of education and training can encourage employee skill upgrading. Where a company gives paid leave to an employee to undertake training, they are making a direct financial contribution. Even where unpaid leave is granted, the company incurs indirect costs (as a result of the employee not being present and the possibility of having to pay for a temporary replacement). As with tax incentives, above, such a mechanism is less suited to small (informal) enterprises that cannot afford staff to take off such time. Nonetheless, for formal medium and large enterprises in LMICs, introducing such regulations – where they don't already exist – may be a useful step to take.
- **Training vouchers for companies.** Grants allocated to companies in the form of vouchers, which part finance training, can be another mechanism to stimulate private sector investment in training. Training vouchers can be purchased by enterprises at a discounted price to introduce an element of "cost-sharing"; for example, a training voucher worth US$250 might be sold to companies for US$125. However, in the absence of targeting, such vouchers may simply be purchased by companies that would have paid full cost-recovery for training anyway.
- **Payback clauses to encourage enterprise-financed employee training.** Payback clauses are essentially agreements between an employee and an employer regarding training that has been financed at the employer's expense; the employee is obligated to stay with that company for a set period of time (e.g., 1–2 years) after completion of training or else repay all or part of the cost of training. Again, a mechanism more suited to formal and larger companies.

Incentivizing Private Enterprises to Contribute to Overall TVET Reform Efforts

- **Stimulating in-kind private sector resources.** Marshaling in-kind private sector resources for TVET may be another option for governments to explore. For example, the involvement of the private sector:
  - On TVET institutional boards
  - In (establishing) sector skills councils and TVET coordination bodies
  - In helping to define curricula and determine skill needs
  - With regard to offering internships, apprenticeships, or other work placements for both students and staff of TVET institutes
- **Private sector corporate social responsibility toward TVET.** Tapping into company corporate social responsibility agreements might be one way to access corporate grants for TVET from large formal companies. For those LMICs with extensive natural resources, or where tourism revenue is relatively significant, there may be scope for such agreements including the requirement of private firms to support TVET providers within their sphere of operations (in cash or in-kind).
- **Private investment in TVET capital projects.** Private funding of capital projects for public TVET may be feasible in certain cases, if, for example, the new buildings have a specific income stream associated with them. Dormitory construction is a case in point, if students are to be charged economic rents (Horne 2014).

Encouraging PPPs and the Expansion of Private Provision

As noted above, PPPs can promote cost-sharing and can also increase private sector collaboration. However, there are some considerations for LMICs to take into account when deciding whether or how to adopt PPPs in TVET (Box 4).

Box 4 Considerations Whether to Adopt PPPs in TVET

Governments need to create conducive policy, regulatory, and administrative climate in which private financing can flourish alongside public financing. For example:

– The **regulatory environment** needs to facilitate, not hinder, the establishment and operation of private training providers.
– National **TVET information systems** and **labor market information systems** need strengthening so that policy makers can help direct private investment away from areas that already experience public overinvestment and toward areas that experience private or public underinvestment.
– **Quality assurance and accreditation systems** need to be able to regulate and assess agreed minimum standards of public and private providers.

(continued)

Box 4 Considerations Whether to Adopt PPPs in TVET (continued)

– **The "private" in PPPs can often mean larger, formal firms**; governments need to encourage intermediaries or associations to bring smaller enterprises into PPPs.
– **Government staff capacity and skills** need to be sufficient to be able to contract private TVET providers.
– **Private TVET providers' capacity** needs to be improved, e.g., by facilitating access to capital, so that they can deliver quality TVET.
– **Publicly funded incentives**, such as subsidies or tax concessions, are one mechanism to promote the private education and training sector.

Sources: Maclean et al. (2012) and Palmer (2015b)

Other approaches to mobilize non-state resources for TVET

- **Retention of internally generated funds at the level of the TVET institution** – the sale goods and services, where revenue is retained is another viable option (see Palmer 2015b).
- **Supply-side financing through tuition fees** – In many LMICs, it is noted that there is only limited scope to increase TVET funding through enrollment fees and that doing so (in the absence of increased targeted financial support) would have negative equity implications for disadvantaged groups. However, in some countries this may be an option, provided that targeted needs-based scholarships or stipends are provided for those that can't pay. Where cost-sharing is expanded, it has been noted that trainee interest in the quality, relevance, and cost-effectiveness of training increases (ADB 2004).

How Can Countries Create the Right Environment for TVET Financing?

TVET financing approaches don't function in isolation of other TVET reform efforts, and governments need to create a conducive policy, regulatory, and administrative climate in which various financing mechanisms can function and where private financing can flourish alongside public financing. This includes (but is not limited to), for example (from Palmer (2015b)):

- **Establishing and strengthening national TVET coordination mechanisms**, where they don't exist, that can coordinate demand and supply and financing mechanisms to achieve specified policy objectives.
- **Ensuring the private sector has control of allocating funds raised from private sector contributions.** To crowd-in private sector financing, the private

sector needs to be directly involved in creating a better system, e.g., in determining the allocation of funds raised (from private sector contributions), involvement in governance, in developing curriculum, in informing training provision.

- **Decentralizing governance of providers** – where full decentralization is not possible, partial devolution, including, for example, the ability to retain self-generated revenue, might be considered.
- **Strengthening TVET quality assurance and accreditation** – needed to facilitate the functioning of some financing mechanisms (e.g., vouchers or allowing private provider to compete for public funds).
- **Improving TVET information systems** – essential for most financing mechanisms and needed in order to align funding to identified need. For example, careful targeting of financing mechanisms at specific beneficiary groups can help to reduce the percentage of individuals or companies who would have taken the training anyway and paid for it themselves. For careful targeting to take place, it is essential to know which groups (categories of people or enterprises) are currently under-investing in training. Targeting does not only have to relate to which groups or categories of people or enterprises should be the priority, but it can also refer to which types of skills should be the priority. To know this, it is necessary to have adequate labor market information systems.
- **Improved tax collection systems** – tax collection capability is particularly important for payroll levies, income-contingent loans, and tax incentives to companies and individuals.

Lastly, countries wishing to adopt various TVET financing mechanisms need to give due consideration to their country's historical, social, and political contexts and assess how these may act as enablers or barriers to the use of certain financing mechanisms.

Conclusion

Agenda 2030 has signaled the increased prominence given to TVET internationally. TVET has been a rising national priority in many LMICs for over a decade. While much of the focus of discussion on the financing of TVET tends to focus on how the resource envelope for the sector needs to be widened (and what effect such a widening might have on the funding the available for primary and secondary general education), significantly less focus has been paid to how TVET funds are allocated within the sector and the role that various allocation approaches can have in incentivizing TVET reform priorities (e.g., access, equity, quality, relevance, employment outcomes). This aspect of TVET financing needs much greater consideration at both national and international levels as countries strive to achieve the Agenda 2030 goals related to TVET.

References

ADB (2004) Improving technical education and vocational training – strategies for Asia. ADB, Manila

ADB (2009) Financing technical and vocational education and training in the People's Republic of China. ADB, Manila

ADB (2014) Innovative strategies in technical and vocational education and training for accelerated human resource development in South Asia. ADB, Manila

Dunbar M (2013) Engaging the private sector in skills development. HEART (Health & Education Advice and Resource Team). Oxford Policy Management, Oxford

Horne R (2014) Marshalling private resources for TVET, Draft Thematic Paper prepared for DFAT (mimeo), 18 December 2014. ACER, Melbourne

Johanson R (2009) A review of national training funds, Social Protection Discussion Paper No.0922. World Bank, Washington, DC

Johanson R, Adams A (2004) Skills development in sub-Saharan Africa. World Bank, Washington, DC

King K, Palmer R (2011) New trends in international cooperation. Background Paper for the UNESCO World Report on Technical and Vocational Education Training. Unpublished

Lee K (2016) Financing training programs: Korean experience. Unpublished PowerPoint for the Second ASEAN+3 Forum on Dual Learning System and TVET Financing, May 23–24, Seoul, Korea

Maclean R, Jagannathan S, Sarvi J (2012) Skills development for inclusive and sustainable growth in developing Asia-Pacific. ADB, Springer. https://www.adb.org/sites/default/files/publication/30071/skills-development-inclusive-growth-asia-pacific.pdf. Accessed 11 Feb 2018

OECD (2014) Designing skill-friendly tax policies. OECD skills strategy spotlight. OECD, Paris

OECD (2016) The list of CRS (Creditor Reporting System) purpose codes. https://www.oecd.org/dac/stats/documentupload/2015%20CRS%20purpose%20codes%20EN_updated%20April%202016.pdf. Accessed 10 Feb 2018

OECD (2018) DAC glossary of key terms and concepts – http://www.oecd.org/dac/dac-glossary.htm#OOF. Accessed on 10.02.18

Palmer R (2015a) The mobilization of resources for technical and vocational education and training: a review of official development assistance and other external financing. Background document for the Inter-Agency Group on TVET meeting, 5–6 Oct 2015 (unpublished)

Palmer R (2015b) Private financing for TVET in the Pacific. DFAT, Canberra http://dfat.gov.au/about-us/publications/Documents/tvet-financing-overview-paper-private-financing.pdf. Accessed 10 Feb 2018

Vanek J, Chen M, Carré F, Heintz J, Hussmanns R (2014) Statistics on the informal economy: definitions, regional estimates & challenges., WIEGO Working Paper (Statistics) No 2. Women in Informal Employment: Globalizing and Organizing, Manchester

World Bank (2015) The rise of results-based financing in education. World Bank, Washington, DC

World Bank (2016) Financing TVET and Skills Development in Philippines. Unpublished background paper for the Second ASEAN+3 Forum on Dual Learning System and TVET Financing, May 23–24, Seoul, Korea https://www.phytoneuron.net/PhytoN-Magnoliidae.pdf