
Research into the Financing of TVET in the Pacific

Strengthening TVET Finance Data Collections

Overview Paper

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List of acronyms

ACER	Australian Council for Educational Research
APTC	Australia-Pacific Technical College
AusAID	Australian Agency for International Development ¹
DFAT	Australian Government Department of Foreign Affairs and Trade ¹
ETF	European Training Foundation
EU	European Union
FTE	Full-time equivalent
ILO	International Labour Organization
ISCO	International Standard Classification of Occupations
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PIC	Pacific Island Country
PNG	Papua New Guinea
SPC	Secretariat of the Pacific Community
TVET	Technical and Vocational Education and Training
UNESCO	United Nations Education, Scientific and Cultural Organisation

Acknowledgments

This overview paper draws on the following unpublished papers produced by ACER in the course of the project *Financing TVET in the Pacific*, as well as the country reports prepared for and published by ACER:

ACER (2014). *Draft Synthesis Report*, 10 November 2014. Melbourne: ACER.

McKenzie, P. (2014). *Regional Framework TVET Finance Data Collections*. Draft Thematic Paper, 25 September 2014. Melbourne: ACER.

McKenzie, P. (2014). *Unit Costs of TVET Provision*. Draft Thematic Paper, 4 October 2014. Melbourne: ACER.

Horne, R. (2014). *The Role of Fees, and Financial Support, in Facilitating Student Access and Course Completion*. Draft Thematic Paper, 19 December 2014. Melbourne: ACER.

Horne, R. (2014). *Marshalling Private Resources for TVET*. Draft Thematic Paper, 18 December 2014. Melbourne: ACER.

¹ AusAID was integrated into DFAT in October 2013. Citations of AusAID in this paper refer to the original authorship and material produced before that time. The documents concerned are available through DFAT.

1. INTRODUCTION

Pacific Island countries (PICs) share a desire for a prosperous economy and a healthy labour market. Labour is a key input into the economy, and skilled labour in particular is seen as a vital element in improving productivity and allowing the economy to grow. Skills can be acquired in many ways, including learning by doing or on the job, but formal education is key and is a critical area of government policy. All forms of education are important, both the general skills obtained from general education in primary, secondary school and tertiary and the more specific technical skills needed for specific occupations. Typically, these specific skills are obtained formally from either the Technical Vocational Education and Training (TVET) sector for the trades and associate professional and service occupations or the higher education sector in respect of the professions.

While a generalisation, it is probably fair to say that primary and secondary schooling, and higher education are more understood in public policy terms than is TVET. This is because they are delivered in a similar manner almost universally. By contrast, TVET's institutional structure - with its mix of apprenticeship models, institutional training and firm training - is varied, and there is no single model that will be appropriate for all PICs. The challenge to public policy is to create structures and funding models which provide an appropriate balance between the various arms of education and training, specifically the balance between general education at primary secondary and university and the narrower technical education at TVET or at university.

This is where information becomes absolutely vital if TVET is to be funded appropriately and organised efficiently and effectively. One can argue without fear of contradiction that PICs should have high quality primary and secondary schooling, and that provision should be universal but TVET is a different matter. TVET's mandate is narrower because its role is to provide skills relevant to the labour market. While no doubt TVET does provide transferable skills what is key is that graduates of TVET are gainfully employed and getting a proper return on their qualifications. If TVET graduates end up unemployed, or employed in unskilled jobs that do not make good use of their skills, then TVET has failed.

To judge the success of TVET and to provide information that will allow it to be developed requires data. Without data, public policy (and the policies of other stakeholders such as churches and non-government donors) becomes a matter of faith or historical practice. McKenzie (2014) suggests that information is required on a number of dimensions (Figure 1) in order to properly monitor and evaluate TVET performance.

Figure 1. Components for monitoring and evaluating TVET performance

Governance context

Governance considers the extent to which TVET system, across all levels and in all the various sub-parts, is characterised by participation, transparency and accountability. Governance also raises questions concerning quality assurance and multiple voices, because new actors are assuming responsibility and taking part in decisions.

Governance structure is largely dependent on institutional arrangements and the respective roles of key stakeholders. Such considerations ultimately encourage questions about the roles that governance systems play in generating and steering the relevance, access and participation and quality/innovation components for delivery of specific models of TVET and within the available resources.

Component 1: Finance

TVET financing is largely determined by the rules and regulations whereby financial resources are collected, allocated, and managed. It largely depends on the economic situation and **available resources**, but also on the priority levels that decision makers of various types of TVET have with regard to relevance, equity and quality; and on the trade-offs stemming from those priorities. This component equally looks at capacity of the system to ensure that resources are equitable and efficiently allocated.

Component 2: Access and participation

This component considers the extent to which various types of TVET promote **equity and inclusion** and the implications on expanding learning opportunities for excluded groups. This is examined through the lens of *access and participation*. While this second component focuses on important social aims of TVET, it simultaneously has a strong relation to the relevance dimension as it prioritizes increasing the numbers of people with viable and effective opportunities to benefit from high quality TVET leading to labour market outcomes.

Component 3: Quality

This component addresses the policy options leading to a TVET system focused on the **teaching and learning process and its effectiveness**. It is a measure of the quality of any TVET programme, that it is effectively conducted and relevant in terms of meeting skill needs. Quality facilities and equipment is also fundamental to the provision of quality TVET. Equally important, this component looks at the capacity of the systems to innovate and how teaching and learning process is a site of innovation itself, for example with rapid changes in the use of information and communication technologies. The component equally looks at the availability of a systematic approach to quality assurance in order to support practitioners and policy-makers in improving the quality of training provision, and also guide students in making choices.

Component 4: Relevance

This component considers the extent to which TVET is **responsive** to labour market needs and requirements. The related policy area to be considered here are *labour market links to TVET programmes* and *outcomes of the TVET programmes*. This component reflects the assumption that the primary and key role of TVET is to raise skills levels and to help matching skills needs at all levels in today's complex and changing labour markets. Relevance also entails the mechanisms and available capacity to understand transition from school and all types of TVET programmes to work as well as to capture labour market signals and to anticipate emerging skills needs and the extent to which this informs TVET provision.

Source: ETF, ILO & UNESCO, 2012, pp.7-8. Emphases as in the original.

Source: McKenzie 2014

This paper is concerned with the finance dimension. This dimension is necessary to measure how TVET is funded and how much is being spent on TVET. It also can provide some analysis of aspects relating to efficiency (for example, the cost of administration relative to the cost of teaching) but needs to be combined with other data on students and student outcomes to answer questions on internal efficiency (for example, the cost per graduate) and effectiveness (for example whether TVET is meeting equity aims and whether TVET graduates are getting appropriate jobs). Developing a framework for TVET finance is key for good policy, but it is necessary not sufficient. At a minimum it needs to be accompanied by collections capturing data on students and outcomes (especially labour market outcomes).

In the long term, PICs need their TVET statistical collections to cover all four components featured in Figure 1. However, a finance collection is what the research project funded by DFAT prioritised and a regional framework for TVET finance is a good starting point.

In this paper, we discuss what a regional framework for TVET finance might look like. In addition, an annex setting out a notional statistical standard accompanies this paper as a separate document. The latter is not intended for the general reader. Rather it is aimed at statistical officers tasked with building a TVET finance collection. In essence, it is a manual which provides practical technical advice for setting up a TVET finance data collection.

Inevitably, a statistical framework is a somewhat dry subject, and some technical nuts and bolts must be dealt with. We begin with a discussion of how to define TVET. This is followed by a discussion of what kind of TVET finance data need to be collected; what TVET finance data are currently collected; and implementation issues -where do we want to get to and where do we start. We conclude with some overarching comments.

2. WHAT IS TVET?

TVET is potentially very diverse. In its broadest sense it can cover formal, non-formal and informal learning. It takes place across a wide range of settings including schools, public and private vocational centres and institutes, higher education institutions and workplaces in both the formal and informal economies. TVET also has a multitude of very different institutional arrangements, organisational approaches and regulations (ETF et al, 2012).

The broad definition of TVET used in the project (AusAID, 2011) is as follows:

Post-secondary education and training programs designed to develop vocational skills. Degree and higher level programs, and subjects delivered as part of general education by secondary schools, are not included in this definition.

Following on from this broad definition there are three dimensions to the scope for a statistical framework. The first is the occupational focus - that is, TVET as providing qualifications for particular occupations. The second is the educational level, in particular distinguishing between TVET and higher education, and between TVET and secondary schooling. There is a third dimension which also can be used to define TVET - that is by the institutions providing TVET. The three dimensions are shown in Figure 2.

Figure 2. The skills, occupations and training matrix guiding the study

Level of skills training (based on the Pacific Qualifications Framework)		Illustrative occupational skill category (based on ISCO 08)		TVET providers			
				Training institutions			In-house training by employers in public and private sectors
				public	Private	regional	
10	Doctoral	1/2	Managers/ professionals				
9	Masters						
8	Post graduate cert/dip						
7	Bachelor degree						
6	Advanced diploma	3	Technicians and associate professionals				
5	Diploma						
3/4	Trade certificate	4	Clerical support workers				
		5	Service and sales workers				
		6	Skilled agricultural, forestry and fishery workers				
		7	Craft and related trades workers				
1/2	Semi-skilled/ operative	4	Clerical support workers				
		5	Service and sales workers				
		8	Plant and machine operators, and assemblers				
	Basic manual	9	Elementary occupations				

Source: McKenzie 2014

The green shaded area defines the scope for the proposed framework for TVET finance statistics. It should be noted that complementary collections such as a student collection would need to observe the same scope.

Thus the scope of the framework is:

- qualifications at the 1-2 to 6 level of the Pacific Qualifications Framework
- qualifications delivered in public or private training institutions or by enterprises
- qualifications that prepare students and trainees with the skills, knowledge and aptitudes that employers require for those employed in middle-level trade and technician occupations (ISCO 08 categories 3 to 8).

An implication of this definition is that non-formal and informal learning are excluded from scope. General education is also excluded. However, part-qualifications would be included, recognising that not all students complete a full qualification. Apprenticeships would be included if they lead to a formal qualification.

It is also noted that there may well be some qualifications that do not fit neatly into a qualifications framework. In respect of such qualifications, judgment would have to be used. The guiding principle should be that they are of a vocational nature, and at the advanced diploma level or lower. Thus typically degrees and post-graduate qualifications are excluded but proprietary computer qualifications (for example, CISCO or Microsoft certificates) would be included.

The Pacific Qualifications Framework provides guidance in respect of the level and duration of qualifications at the certificate to diploma level (Secretariat of the Pacific Board for Educational Assessment 2011)

3. WHAT KIND OF TVET FINANCE DATA NEED COLLECTING?

A fundamental challenge in developing a framework is that it needs to be able to address the needs, many not yet defined, of multiple stakeholders. Statisticians at the same time need to be aware of the data collection realities as there is little point in specifying data which cannot be practically collected. Thus there is always a trade-off between desiring very fine grained data on one hand the realities of data collection on the other.

Therefore, we suggest anchoring the discussion of 'what finance data' by first agreeing on how finance data can be collected. In this respect, we can view TVET finance in two ways. First, we can think of TVET finance in terms of who is providing the resources - government, non-government bodies, businesses and private households. We could attempt to find out from each of these groups how much is spent on TVET. The alternative is to focus data collection on the business of delivering TVET. That is, obtain finance data from the providers of TVET. The second has the great attraction of focusing data collection on the units that are in the TVET business, and would naturally align with a complementary student data collection.

Thus our starting point is to think about the finances of TVET providers, and use this information (paraphrasing McKenzie 2014, p4) as the basis for meeting the needs of:

- governments (and non-government donor organisations) to formulate policies, carry them through and evaluate their impact
- TVET providers to manage their affairs and improve their operations.

Approaching a framework in this way then provides a natural way forward, in as much that a finance collection should reflect the management practices of TVET providers. This immediately suggests a starting point for what should be collected namely, first, revenue and expenditure relating to the delivery of TVET and, second, the financial position of the provider.

Looking at the financial position of the providers in addition to revenue and expenditure allows the distinction to be drawn between recurrent and capital expenditure. This distinction is important for the longer term sustainability of organisations.

The great advantage of this type of approach is that data can be drawn directly from the financial accounts of TVET providers, thus reducing response burden as much as possible. Inevitably, the financial accounts of some organisations may not be aligned with what is needed. This will provide a challenge in the short term, but over time it should be possible for providers to align their accounts with the framework's requirements, and this is likely to also have a long term benefit for the management of the organisation.

At a very aggregate level, collection of revenue and expenditure should not be too difficult as long as the TVET organisations have rudimentary accounts. However, the level of disaggregation will be constrained by the granularity of financial statements.

We propose that a starting point for the finance collection should be revenue by source and expenditure at some level of disaggregation. Such data are needed for any consideration of the funding of the TVET sector and its efficiency. Thus a fairly coarse level of disaggregation would provide for income and expenditure as set out in Table 1.

Table 1 Income and expenditure for TVET in country [xxx] for year ending December 31, 20xx

Income
Revenue from Government (recurrent)
Donor grant (recurrent)
Fee-for-service
Ancillary trading
Student fees and charges
Other income
Gain on sale of property, plant and equipment
Total income from ordinary activities
Expenses
Employee costs
Supplies and services
Scholarships and other grants
Depreciation and amortisation
Impairment losses
Loss on sale of property, plant and equipment
Borrowing costs
Other costs
Total expenses from ordinary activities

A point to emphasise is that this mimics the income and expenditure statement of an organisation following international accounting standards. Its aim is to get a comprehensive picture of income and expenditure, in order to get a complete picture of how TVET is funded and what its delivery costs. In this respect, expenditures on items such as depreciation and borrowing costs, for example, are required to get a complete accounting of the cost of delivery. In addition there needs to be sufficient disaggregation to throw light on the business of TVET. The latter is needed for the information to be useful to stakeholders - to get only total income and total expenditure is not very informative.

The suggestion above is a starting point. However, to answer questions relating to efficiency a greater level of disaggregation is required on the expenditure side. For example, data on employee cost disaggregated by administrative staff and teaching staff would be needed to consider issues relating to administrative efficiency. Similarly, calculation of cost per student by field of study would require a disaggregation by field of study. This would be only possible if TVET providers are organised along fields of study, with distinct cost centres for the various fields of study.

3.1. Issues

A number of issues arise in answering the question of what TVET financial information should be collected.

Timing

Adopting a financial statements approach means that the data will need to be collected for the financial year used by the organisation in question. In the example given later in the

section, the data refer to a financial year ending 30 June. However, it is possible that some organisations report on a calendar year basis. If there is inconsistency in reporting dates then there is a choice: add up data across inconsistent dates; or pro-rate data across financial years. The first alternative is probably simpler.

What is expenditure on TVET?

Following common practice (OECD 2014, for example) scholarships and student support for accommodation and transport are included, but the private expenditure of families supporting the living costs of students would not be included.

The proposed framework includes government expenditure going to TVET providers but would not include indirect expenditure such as payroll tax exemptions. Nor would it capture revenue raising programs such as a training levy. Only income and expenditure going through a TVET provider would be included.

Organisations to be covered

While the above discussion has been couched in terms of VET providers, the organisations responsible for policy and system administration should be included (that is the relevant parts of Government training departments, and quality assurance bodies). Otherwise, the total cost of delivering VET would not be obtained.

In terms of providers, TVET qualifications can be delivered in a variety of settings and by a variety of providers. Providers include:

- public providers, typically governed by and largely funded by government
- private providers (Church and other non-government organisations and for profit providers)
- regional organisations (the two largest being the Australia-Pacific Technical College and the University of the South Pacific)
- enterprises.

While in theory all providers of TVET qualifications should be covered by a TVET finance data collection, in practice this may be difficult to achieve. Pragmatically, coverage of a finance collection in a specific country will be defined by a list of providers from whom data can be obtained. Appendix 1 of the Annex lists providers that were defined to be in scope for the *Financing of TVET in the Pacific* study, by country.

A further difficulty is that some providers will be offering qualifications that both are in and outside the scope of the collection. This will certainly be an issue for providers offering both degree and sub-degree qualifications. For such providers, it is typically not possible to separate out which resources are spent on TVET and which are spent on students undertaking other qualifications. In this case, rules of thumb must be used to apportion between TVET and other education. A crude way of doing this is to use the number of students, preferably in terms of effective full-time students or credit points. More sophisticated methods would allow for differences in costs across discipline groups and by level. Universities offering TVET have the additional challenge of separating teaching from research.

Another issue is that the delineation of TVET is not always straightforward. TVET is delivered by providers and those providers might be undertaking a range of commercial activities which are not directly related to TVET courses. For example, a college teaching hospitality might undertake some commercial catering or sell products made by students. The question is whether such revenue should be included in the revenue associated with delivering TVET. This will centre on whether such activity is seen as a way of supplementing income which will be used to deliver TVET or not. If the income contributes

to the cost of delivery then it should be included. Thus generally, all activities of an organisation whose primary purpose is to deliver TVET would be included. But there are situations when this would not be appropriate. For example, if a hotel has a training arm that delivers TVET qualifications, it clearly would not be appropriate to include the commercial activities of the hotel.

Another example is the delivery of non-accredited TVET. A college may run non award training courses for other organisations on a fee for service basis. This may be an important income stream for the college. The question is whether this income should be included, despite the fact that it does not relate to accredited TVET qualifications as defined by the scope discussed earlier. Following the line of argument used above, it would be appropriate to include the income if it contributes to the primary purpose of the college which is to deliver accredited TVET. However, if the college largely delivered such non-accredited training, then arguably it should not be included.

As a way forward it is suggest that a pragmatic approach is adopted, which distinguishes between three types of provider:

- (1) Organisations whose primary purpose is the delivery of TVET, as defined in the scope above. For these providers, *all* financial activities should be included in the collection.
- (2) Organisations whose primary purpose is the delivery of TVET, higher education or school education. For these providers, an estimate for the financial activities relating to the delivery of TVET needs to be made. A simple way to do this is to pro-rate by the number of TVET students relative to the total number of students (preferably on a full-time equivalent basis). For universities offering some TVET qualifications it will also be necessary to exclude income and expenditure relating to research. This would have to be done on a case by case basis.
- (3) Organisations which deliver TVET, but as ancillary to the main activity of the organisation (for example, a hotel with a training arm). For such organisations, estimates will be needed to identify what relates to the TVET delivery.

Treatment of capital and equity

The discussion above relates to measuring the income and expenditure relating to the delivery of TVET. As such, expenditure on buildings and equipment is captured by depreciation. However, this provides a somewhat incomplete picture of the finances of TVET organisations by ignoring the balance sheet side of financial reporting. In order to capture information relating to the long-term sustainability of TVET (and capturing data on capital funding) ideally the income and expenditure data should be complemented by a statement of financial position showing assets and liabilities. A standard statement is presented in Table 2.

Table 2 Statement of financial position for TVET in country [xx], December 31, 20xx

ASSETS
Current assets
Cash
Receivables
Investments
Other
Total current assets
Non-current assets
Receivables
Investments
Property, plant and equipment
Other, including intangibles
Total non-current assets
TOTAL ASSETS
LIABILITIES
Current liabilities
Payables
Interest-bearing liabilities
Provisions and employee entitlements
Other
Total current liabilities
Non-current liabilities
Payables
Interest-bearing liabilities
Provisions and employee entitlements
Other
Total non-current liabilities
TOTAL LIABILITIES
NET ASSETS
Equity
Accumulated surpluses/(losses)
Reserves
Contributed capital
TOTAL EQUITY
Contingency
Commitments for expenditure

This is a standard financial statement and should follow the conventions of international accounting standards. Its aim is to show the financial health of the organisation. One point to note is that there are a couple of 'below the line' entries. These are important in situations in which organisations have future obligations. To include such items as assets without a corresponding liability would be to misstate the level of resources available to the organisation in the reporting period.

Many of the issues discussed earlier in respect of income and expenditure apply to this statement; for organisations which have significant non-TVET activities, it will be necessary to estimate the share of assets and liabilities that should be attributed to TVET. A reasonable way of doing that would be to pro-rate according to expenditure levels relating to the TVET and non-TVET activities.

One issue that may arise is the treatment of capital funding when governments, for example, provide funding for a building. The treatment depends on accounting standards, but generally speaking it is misleading to include capital funding in the income relating to ordinary activities. Rather it should appear as an asset.

3.2. An example

The financial statements of the National University of Samoa, taken from the annual report in the public domain, show the practicality of the approach. In this example we see that the statements provide more detail than what is required.

Table 3. National University of Samoa Statement of Financial Performance for the year ended 30 June 2014

		2014 \$	2013 \$
	Notes		
Income			
Operating grant		10,998,942	11,574,802
Course fees		7,316,581	6,707,125
Rental income	7	570,566	489,053
Hire of gowns		74,880	55,180
Gymnasium fees		65,641	61,059
Project donor funds	5	6,646	
Amortisation of deferred income	4	815,668	815,669
Other income		371,998	214,817
Surplus from Bookshop operations	6	73,285	89,691
Gain from sale of fixed assets		39,516	3,496
Total income		20,333,723	20,010,892
Expenses			
Administration expenses	9	4,113,050	3,428,146
Accounting & Audit fees		32,537	30,353
Deficit from conference hosting	8		21,684
Depreciation	10	2,267,104	2,299,267
Repairs & maintenance		398,924	700,808
Software upgrade/fees		132,742	231,327
Personnel costs	11	12,595,161	12,455,297
Total expenses		19,539,518	19,166,882
Operating surplus		794,205	844,010
Less other expenses:			
Net finance income	12	125,499	67,355
Provision for long service leave	20	(277,565)	(176,023)
Total other expenses		(152,066)	(108,668)
Net surplus for the year		642,139	735,342

Source: Government of Samoa 2014

Table 4. National University of Samoa Statement of Financial Position as at 30 June 2014

		2014 \$	2013 \$
	Notes		
ASSETS			
Non Current assets			
Property, plant and equipment	10	49,111,960	50,064,809
Total non current assets		49,111,960	50,064,809
Current Assets			
Other receivables and prepayments	13	1,275,386	1,126,391
Bookshop inventory	14	96,958	142,736
Term deposits	15	3,926,312	2,830,697
Cash on hand and at bank	16	1,029,109	1,790,889
Total Current Assets		6,327,765	5,890,713
TOTAL ASSETS		55,439,725	55,955,522
EQUITY AND LIABILITIES			
Equity			
Capital		29,997,837	29,997,837
Accumulated losses		(5,268,840)	(5,910,979)
Total Equity		24,728,997	24,086,858
Non current liabilities			
Deferred income	4	25,140,153	25,955,821
Long service leave		1,586,461	1,308,896
Total non current liabilities		26,726,614	27,264,717
Current Liabilities			
Deferred income	4	815,668	815,668
Annual and sick leave		1,042,064	1,440,931
Other Payables and accruals	17	2,126,382	2,347,348
Total Current Liabilities		3,984,114	4,603,947
TOTAL EQUITY AND LIABILITIES		55,439,725	55,955,522

Source: Government of Samoa 2014

4. TVET FINANCE DATA CURRENTLY COLLECTED

The ACER study has highlighted the fragmented nature of the provision of TVET in the Pacific. Data availability and data quality are very variable, as can be seen in Table 5.

It can be seen that on the revenue side existing published information (indicated by green shading) generally only related to government budget outlays on public TVET providers and regulatory authorities², and donor contributions to public TVET providers, regulatory authorities, and the main regional provider (APTC). On the expenditure side, existing information generally only related to the main categories of expenditure in public TVET providers and regulatory authorities. The research teams generally had to do a lot of unpacking of institution-level information in order to provide estimates of expenditure by TVET program, including having to make a number of assumptions concerning the allocation of overheads.

Table 5 indicates that the research teams needed to collect extensive data via survey forms. In many instances this involved visiting the providers concerned, often on more than one

² In most of the countries there were gaps, some of them substantial, between the amounts governments had budgeted for expenditure on TVET, and the actual income received or able to be accessed, by TVET organisations. In the main, the size of the gaps was only evident following detailed collection and analysis of provider-level data by the research teams.

occasion. On the revenue side, the main areas in which data had to be collected by the teams concerned donor contributions to private (on-government) TVET providers, outlays on TVET by non-government organisations (most commonly Churches), revenue from student fees, and revenue from other sources such as sales of services (e.g. training for employers) or products (such as catering or handicrafts).³

On the expenditure side, Table 5 indicates that in most countries the research teams needed to collect information relating to private (non-government providers), the main regional provider, and TVET-specific contributions from donors. As noted above, even in the case of public TVET providers where some expenditure information was already available, considerable work was often needed in order to allocate this by main expenditure category and, with more difficulty, by different types of TVET program.

The ACER research also found that there was considerable variation in the availability and quality of data by country. The country reports for Samoa, Tonga, Solomon Islands, Fiji and Kiribati contain tables showing data availability and quality, and these are included at Appendix A. Summary tables for PNG and Vanuatu were not compiled but the country reports for these countries do contain some finance data.

³ In a number of countries, public TVET providers are required to return to government any revenue that they obtain from student fees and the sale of services and products.

Table 5 Summary of TVET financing data availability, by country

	Fiji	Kiribati	PNG	Samoa	Solomon Islands	Tonga	Vanuatu
REVENUE FOR TVET							
Government budget outlays							
Government --> TVET providers/regulatory bodies	1	1	1	1	1	1	1
Donor contributions							
Donors --> public providers/regulatory bodies	1	1	1	1	1	1	1
Donors --> private (non-government) providers	2	2	3	2	2	2	2
Donors --> regional providers (APTC)	1	No APTC campus	1	1	No APTC campus at the time	No APTC campus	1
Outlays from non-government organisations							
Churches --> TVET providers	N/A	2	2	2	2	2	N/A
Student fee revenues							
Student fees --> Public TVET providers	2	2	2	2	2	2	4
Student fees --> Private (non-govt) TVET providers	2	2	3	2	2	2	4
Additional revenues							
Sale of products/services	2	2	2	2	2	2	4
Other	2	2	2	2	2	2	4
EXPENDITURE ITEMS							
Public providers/regulatory bodies (including donor-							

supported infrastructure)							
Personnel expenditure	1	1	1	1	1	1	1
Maintenance and other operating expenditure	1	1	1	1	1	1	1
Overheads	1	1		1	1	1	1
Capital	1	1	1	1	1	1	1
Scholarships	1	1	3	1	1	1	1
Private (non-government providers							
Personnel expenditure	2	4	3	2	3	2	N/A
Maintenance and other operating expenditure	2	4	3	2	3	2	N/A
Overheads	2	4		2	3	2	N/A
Capital	2	4	3	2	3	2	N/A
Scholarships	2	4	3	2	3	2	N/A
Regional providers (APTC)							
Personnel expenditure	2	No APTC campus	2	2	No APTC campus at the time	No APTC campus	2
Maintenance and other operating expenditure	2		2	2			2
Overheads	2		2	2			2
Capital	2		2	2			2
Scholarships	2		2	2			2
TVET-specific donor programs/initiatives							
Personnel expenditure	2	2	2	2	2	1	4

Maintenance and other operating expenditure	2	2	2	2	2	1	4
Overheads	2	2	2	2	2	1	4
Capital	2	2	2	2	2	1	4
Scholarships	2	2	2	2	2	1	4
Students							
Enrolment (headcount)	2	3	3	1	3	2	3
Full-time equivalent	4	4	3	1	4	4	4
Graduates (headcount)	4	4	3	1	4	4	4
Labour market outcomes (individual and employer satisfaction with training, employment status, earnings, career paths)	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Key:

Information predominantly sourced from:

Published documents (e.g. budget papers, official reporting)	1
Survey returns (population or good representation)	2
Survey returns (sample or partial representation)	3
Estimations derived from available information	4
N/A	Not available

Source: McKenzie 2014

5. IMPLEMENTATION: WHERE DO WE WANT TO GET TO AND WHERE DO WE START

The great advantage of a regional framework is that it provides for a common approach. Not only does this save individual countries from having to develop their own framework but it potentially will enable countries to benchmark against each other, and provide a common basis for discussion of issues relating to TVET. The ideal is to have finance data collected against the framework in a consistent and comprehensive manner, allowing the estimation of indicators that would assist in monitoring the efficiency and effectiveness of TVET. We also distinguish between an initial goal and a long run goal. The difference between these goals would likely be in the degree of disaggregation and the comprehensiveness of the collection, and the degree of estimation that is necessary. In addition, it may be sensible to begin with income and expenditure and leave the statement of financial position as a long run goal.

5.1. Short run goals:

- Data from large providers and government administrative bodies (e.g. quality assurance, policy)
- Income by major source (government, non-government donors, fee for service, other)
- Expenditure by broad components (scholarships and other grants; employee costs; supplies and services; other costs)

5.2. Long run goals

- Data from all providers and government administrative bodies
- Income by major source (as for short run goals)
- Expenditure by component (scholarships and other grants; employee costs (disaggregated by administration and teaching); supplies and services (disaggregated by administration and teaching); other costs (disaggregated by administration and teaching) and by field of study.
- Statement of financial position (assets, liabilities and equity).

In addition, a long run goal should be to develop an association of finance data collectors with the aim of sharing experience and further developing the framework.

5.3. Where do we start?

Clearly the beginning must be some sort of agreement on the architecture of the framework, even if it is at the level of principle. Table 6 presents a list of design parameters needing decisions, based on the discussion in the previous section.

Table 6 Architecture of proposed framework

Issue	Comment
Income and expenditure expressed as a set of accounts relating to TVET activity	This provides a conceptual basis consistent with international accounting standards, and reduces response burden by allowing extraction of data from organisation's financial statements. Will very much simplify data collection for bodies whose main/sole activity is delivering TVET.
Statement of financial position	This allows for the treatment of capital and provides a view of the overall financial health of TVET. Will be simple to collect from TVET organisations with proper financial statements.
Timing	The choice is to designate a period (calendar year of financial year) or to be flexible depending on the reporting period used for accounting purposes for the organisation in question.
Activity included	Activities relating to delivery of TVET and scholarships and support for students (by TVET organisations). Includes all costs of delivery (for example, depreciation of buildings and equipment). Does not include indirect expenditure such as pay roll tax exemptions. Does not include private support of students.
TVET qualifications	Sub-degree qualifications (levels 1/2 to 6 of the Pacific Qualifications Framework) aimed at sub-professional occupations (ISCO 08 categories 3-8). Includes part-qualifications but not informal training.
Providers covered	Specified TVET providers. Also includes government bodies administering TVET.
Estimation of activity relating to TVET	All activity of organisations mainly/solely delivering TVET would be covered. However, for education providers offering other qualifications as well, TVET activity will have to be estimated (for example, by pro-rating by full-time student equivalents). Universities in scope (those offering TVET) will need to exclude research activities. Enterprises with a training arm will need to isolate their TVET activity. Estimation will also be required in respect of the assets and liabilities attributed to TVET

Having agreed on the overall architecture, an obvious way forward would be for one country to embark on data collection, in order to trial the framework. In commencing such a trial, a pragmatic approach would be to restrict the collection to the subset of providers that dominate provision.

McKenzie (2014) noted that the seven country studies conducted by ACER indicate that TVET is an activity largely conducted in institutions that can be classified as *public TVET providers* in that they are largely under the administration of government ministries and other agencies. In four countries the majority of TVET enrolments are estimated to be in public providers: PNG (91%); Fiji (73%); Kiribati (69%); and Vanuatu (63%). In Tonga almost half (48%) of TVET enrolments were in public providers, and the proportion in Samoa (42%) was also sizeable. Only in the Solomon Islands were public TVET enrolments a fairly small share (28%), but even here if it were possible to convert enrolments to full-time equivalents, the share in public providers is likely to be considerably higher.

Given that public providers overall comprise the largest share of TVET enrolments in the participating countries, ACER proposed that public providers be the focus of initial data collection efforts. They argued that in general, the courses provided by public providers in PICs tend to be longer in duration and more expensive to deliver than courses delivered by private providers in their various forms.

An initial focus on public providers also has pragmatic advantages in that public providers are relatively few in number, they tend to be larger than non-government providers and therefore potentially have more capacity for providing (and using) data, and there may be fewer potential commercial-in-confidence issues with collecting data from public than from private providers. The data quality standards and collection processes developed for public providers could be progressively extended to other providers.

This is not to say that TVET providers that are not classified as 'public' should not also provide data for TVET policy purposes, especially where they are in receipt of government or donor funding. It is just that, in the short-term at least, ACER argued that data improvement efforts focused on public TVET providers are likely to be more cost-effective. ACER pointed out that the National Institute of Labour Studies (2010) reached a similar conclusion in reviewing TVET and skills data needs in Bangladesh.

This recommendation would appear to be reasonable in respect of building a framework for finance statistics, but there is a further consideration driven by the fact that the framework is built on accounting concepts. Thus, the framework should be relatively easy to populate for those organisations which have annual (preferably audited) financial statements, particularly if the organisation's primary activity is the delivery of TVET. In fact, one of the motivations in basing the framework on standard financial statements is to obviate the need for new systems to be developed. Thus a list of public providers could be supplemented by those private providers who are large enough to have financial statements of reasonable quality.

The point is that the implementation of a TVET finance framework will be a long term endeavour. Ideally, it would be incorporated into a larger program of building statistical capacity in the Pacific. The work done by the Secretariat of the Pacific Community in building statistical capacity may be a possible vehicle (See Secretariat of the Pacific Community 2010). Certainly the approach we have proposed - a common approach based on the financial statements of individual organisations- is one that fits nicely into a regional framework. The task will be easier if the Pacific countries have adopted common accounting standards. However, it is acknowledged that compiling TVET financial statistics will take considerable work even if organisations' financial statements are in good shape. The data will have to be extracted, and it likely to be a process which is improved in time as experience is developed. One arrangement which would assist would be to build a 'community' of finance officers from the organisations which would need to supply data.

6. FINAL COMMENTS

The approach we have proposed in developing a framework for TVET finance data is to base it on standard accounting conventions. Such an approach has the advantage of providing a firm benchmark (relative to collecting ad hoc financial elements) and of reducing response burden, at least for those organisations which as a matter of course produce financial statements. It is a huge benefit if we can avoid requiring TVET organisations to collect additional data. That said, it will be easiest for those organisations whose primary or sole activity is the delivery of TVET. It will be more difficult for those organisations for which TVET is but one of a number of activities.

It needs to be acknowledged that asking providers to provide standard financial statements that follow the conventions of international accounting standards will be a challenge in the Pacific. In a number of the study countries, there are no audited accounts of public spending generally or in respect of TVET specifically. The PNG study, for example, highlights that budget papers containing TVET expenditures do not conform to international accounting

standards (Horne et al 2014, Section 11.2). While the absence of audited statements conforming to international accounting standards is an issue, there are compelling reasons to base a TVET finance data collection on proper standards which follow the international conventions. From a governance perspective, a picture of TVET finance data based on proper standards will provide integrity and transparency in the stewardship of TVET funding. Additionally a TVET finance data collection standard provides a template for extracting data from budget papers and non-standard sets of accounts. It would be hoped that over a period of years the primary data would be developed to conform to proper accounting standards, making it easier for statisticians to extract the TVET finance data and making the base data more transparent to stakeholders in general.

However, it is acknowledged that the development of a finance collection will involve considerable effort and is likely to take a number of years. ACER did manage, though, to collect considerable finance data during their research (which closely approximates the components suggested for the framework) and this suggests that it is indeed feasible to build a TVET finance collection. The ACER research did involve the extraction of data from individual providers, and this is likely to be necessary until individual organisations develop management practices that provide the data as a by-product. The use of international accounting standards assists in this regard.

As a final comment, it is worth making the point that financial statements are primarily a tool to assist managers and stakeholders in understanding the business. If the implementation of a TVET finance framework leads to an improvement in the quality of the financial statements of individual organisations then this will be of direct benefit to those organisations. Thus a regional framework will have the double benefits of improving the efficiency and effectiveness of the overall TVET sector but also improving the management of individual TVET organisations.

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Appendix 1: Data compiled by ACER

The full set of tables compiled by ACER can be found in the various country reports. We extract here tables relating to an assessment of data availability and data quality. These data should be useful in planning future implementation of a financial data framework

Samoa

Table A1. Indicative quality of TVET sector financial data, Samoa

data item	TVET provision								industry/ employers	regulators	
	NUS		private		regional		other training providers			SQA	MCIL app and emp. services
	TVET programs	Oloamanu Centre	Don Bosco	other private colleges	APTC	USP Alafua CCCE	other gov't agencies	SUNGO and SCoC			
government budget allocations											
recurrent			not applicable	not applicable	not applicable	not applicable		not applicable	not applicable		
development					not applicable	not applicable		not applicable	not applicable		
capital					not applicable	not applicable		not applicable	not applicable		
other revenue sources											
AusAID direct support			not applicable	not applicable		not applicable			not applicable		
other ODA direct support					not applicable				not applicable		
student fees										not applicable	not applicable
sale of services											
industry contributions											
other funding sources										not applicable	not applicable
Total funding											
actual expenditure											
recurrent											
personnel											
other recurrent											
development programs											
capital works											
Total expenditure											
student assistance										not applicable	not applicable

	good, reliable, comprehensive, up-to-date
	fair- but not current and/or complete
	patchy, not complete
	nothing systematic
	no data currently available

Source: Maglen et al 2013, Table 2.4

Tonga

Table A2. Summary of available source material on TVET, Tonga

Source material	Gov providers	Catholic providers /system	FWC providers /system	Regional providers	NGOs*	MET/ MEWAC/ MoTEYS	MDAs**	TNQAB
Strategic plans								
Operational plans								
Budget allocations								
Annual reports								
Websites								
Donor strategies/plans								
Donor annual reports								
Commissioned reports								

	current , with useable TVET and financial statistics
	current , with useable TVET statistics, but without financial statistics
	out-of-date or incomplete, but with useable TVET and financial statistics
	out-of-date or incomplete, with limited TVET statistics and no financial data
	no reports available

* Within NGOs sampled there was variance across the quality and level of information across source material. This summary reflects an assessment of NGOs overall.



** Includes Public Service Commission and Ministry of Commerce, Tourism and Labour.

Source: Bateman et al 2014, Table 2.5

Table A3. Indicative quality of TVET sector financial data, Tonga

	Gov providers	Catholic providers	FWC providers	Regional providers	NGOs*	MET/ MEWAC/ MoTEYS	MDAs**	TNQAB
Government/Church				n.a.				
AusAID			n.a.					
Other ODA			n.a.	n.a.				
Student fees						n.a.	n.a.	n.a.
Registration fees				n.a.	n.a.	n.a.	n.a.	n.a.
Sale of services				n.a.	n.a.	n.a.	n.a.	n.a.
Industry contributions				n.a.	n.a.	n.a.	n.a.	n.a.
Expenditure				n.a.				

	good, reliable, comprehensive, up-to-date
	fair- but not current and/or complete
	patchy, not complete

	limited , nothing systematic
	no relevant data currently available

* Within NGOs sampled there was variance across the quality and level of information across source material. This summary reflects an assessment of NGOs overall.

** Includes Public Service Commission and Ministry of Commerce, Tourism and Labour.

Source: Bateman et al 2014, Table 2.7

Solomon Islands

Table A4. Summary of available source material on TVET, Solomon Islands

Source material	SINU	VRTCs	Regional providers	NGOs	MEHRD	MDAs**	EAs
Strategic plans							
Operational plans							
Budget allocations							
Annual reports							
Websites							
Donor strategies/plans							
Donor annual reports							
Commissioned reports							

	current , with useable TVET and financial statistics
	current , with useable TVET statistics, but without financial statistics
	out-of-date or incomplete, but with useable TVET and financial statistics
	out-of-date or incomplete, with limited TVET statistics and no financial data
	no reports available

* Within VRTCs sampled there was variance across the quality and level of information across source material. This summary reflects an assessment of VRTCs overall.





**Includes Institute of Public Administration and Management (IPAM) and Ministry of Commerce, Industry and Employment. IPAM provided Annual reports however MCIE did not provide any documentation.

Source: Bateman et al 2014, Table 2.6

Table A5. Indicative quality of TVET sector financial data, Solomon Islands

	SINU	VRTCs	Regional providers	NGOs	MEHRD	MDAs*	EAs
Government/Church			n.a.		n.a.		
The Australian Aid Program	n.a.						
Other ODA			n.a.				
Student fees					n.a.		n.a.
Registration fees	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sale of services	n.a.		n.a.	n.a.	n.a.	n.a.	n.a.
Industry contributions			n.a.	n.a.	n.a.		n.a.
Expenditure			n.a.				

	good, reliable, comprehensive, up-to-date
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	fair- but not current and/or complete
	patchy, not complete
	limited , nothing systematic
	no relevant data currently available

*Includes Institute of Public Administration and Management (IPAM) and Ministry of Commerce, Industry and Employment (MCIE).

Source: Bateman et al 2014, Table 2.7

Fiji

Table A6 Summary of available documentary source material on TVET, Fiji

information source	FNU				MoE		MoYS	MoLIRE	MoA	MoFF	private providers	regional providers		FHEC
	all activities	TVET programs	apprentice program	National Training Levy	all activities	TVET programs	YTCs	NEC programs	Agric college	Forestry TCs		APTC	USP - RCCCE	
websites/brochures														
strategic plans														
annual corporate plans														
annual MoF budget allocations														
annual budgets all sources														
annual reports														
statistical bulletins														
donor strategies and plans														
donor annual reports														
commissioned reports														

	descriptive – general, non-quantitative information
	current , with useable TVET and financial data
	current financial data, but no useable TVET statistics
	current , with useable TVET statistics, but without financial data
	out-of-date or incomplete, with limited TVET statistics and financial data
	no reports currently available

Source: Maglen et al 2014, Table 2.1

Table A7 Indicative quality of TVET sector financial data, from all study sources, Fiji

data item	FNU			MoE		MoYS	MoLIRE	MoA	MoFF	private providers	regional providers		TVET regulators	
	overall	TVET programs in colleges	NPTC programs	general	vocational schools	YTCs	NEC programs	Agric college	Forestry TCs		APTC	USP - RCCCE	FHEC	NPTC
government budget allocations														
recurrent											n/a	n/a		
development											n/a	n/a		
capital											n/a	n/a		
other revenue sources														
National Training Levy/Grant				n/a							n/a	n/a	n/a	
AusAID direct support	n/a					n/a	n/a						n/a	
other ODA direct support						n/a	n/a						n/a	
student fees				n/a			n/a						n/a	
sale of services				n/a			n/a						n/a	
other eg apprenticeships				n/a		n/a	n/a						n/a	
other funding sources				n/a			n/a						n/a	
Total funding				n/a										
actual expenditure														
recurrent				n/a										
personnel				n/a										
MOOE				n/a										
development programs				n/a										
capital works				n/a										
Total expenditure				n/a										
student assistance														
student assistance				n/a									n/a	n/a

current and comprehensive

current, but not comprehensive

patchy, not current and/or comprehensive

no data currently available

n/a

not applicable

Source: Maglen et al 2014, Table 2.3

Kiribati

Table A8 Summary of available source material on TVET, Kiribati

Source material	KIT	MTC	FTC	KSON	KTC	PSO	MLHRD	MoE
Strategic plans								
Operational plans								
Budget allocations								
Annual reports								
Websites								
Donor strategies/plans								
Donor annual reports								
Commissioned reports								

	current , with useable TVET and financial statistics
	current , with useable TVET statistics, but without financial statistics
	out-of-date or incomplete, but with useable TVET and financial statistics
	out-of-date or incomplete, with limited TVET statistics and no financial data
	no reports available

Source: Majumdar and Teaero 2014, Table2.4.

Table A9 Indicative quality of information compiled or collected on TVET programs

	KIT	MTC	FTC	KSON	KTC	KPC
Program descriptions						n.a.
Fees						n.a.
Student contact hours						n.a.
Enrolment numbers						
Graduation numbers						n.a.
Student outcomes						n.a.
Staffing numbers						n.a.
Teaching hours						n.a.

	good, reliable, comprehensive, up-to-date
	fair- but not current and/or complete
	patchy, not complete
	limited , nothing systematic
	no relevant data currently available

Source: Majumdar and Teaero 2014, Table 2.5.