



# PIPSO

Pacific Islands Private Sector Organisation

WORKING  
CAPITAL

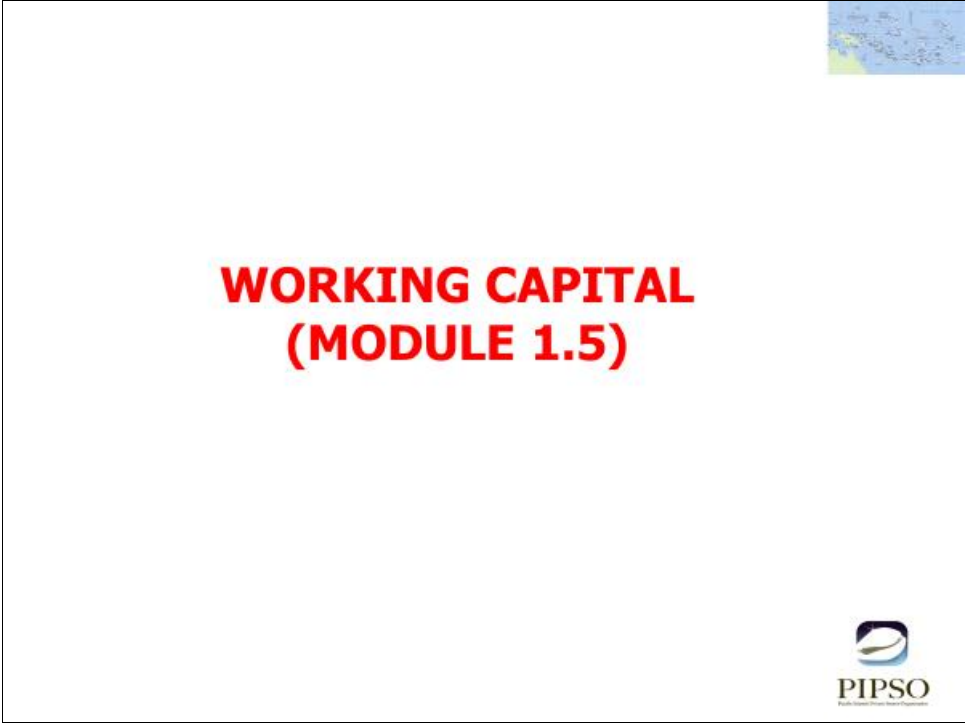
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This Module contains documents to record, maintain & control debtors, creditors & inventory. It includes exercises for participants to complete & the opportunity for discussion of the purpose for maintaining the records. The Module includes the recording of inventories in the Trading Account. The cash conversion cycle is introduced as a measure of business efficiency.

**MODULE  
1.5**



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## PURPOSE

This module describes the nature of working capital & introduces management of debtors, creditors & inventory. It details records that may be used to monitor each of these in turn.

In addition, this Module includes the valuation & presentation of inventories in the financial statements; in the Trading Account (opening & closing balances).

Finally, we calculate working capital & the cash conversion cycle is discussed. An example is used to do calculations & use this information to assess business efficiency. Further to this, Module 1.6, Cash Flow Forecasting offers several tips for management of working capital.

The module stresses the need to plan & manage working capital beyond day to day activity. Neglect can rob a profitable business of much needed cash.

Overall, this Module is intended to provide a small business owner with sufficient guidance to manage their working capital. It covers:


1. The need for active management of:
  - a. Debtors
  - b. Creditors
  - c. Inventories
2. Records that may be used for this purpose
3. Calculations relevant to the cash conversion cycle
4. Exercises to reinforce ideas put forward

Ratio analysis is introduced at the end of this module in the context of the efficiency of debtor collection & inventory turnover. Financial ratio analysis is expanded in greater detail in Level 2, Module 2.6, Financial Statements.

This module continues the theme that for a small business “cash is king”.

On completion of this Module participants should be able to set-up & maintain basic records to manage debtor, creditor & inventory for their business. They should also be able to calculate simple ratios to monitor how quickly they receive their cash.

## NATURE OF WORKING CAPITAL




### DEFINITION

Working Capital is mainly comprised of:

- ✓ Debtors
- ✓ Inventories
- ✓ Creditors
- ✓ Cash

It will normally have two components:

1. Fixed (permanent)
2. variable (fluctuating)



There may be other current assets & liabilities, e.g. short-term loans to or from the business or prepaid or accrued assets or liabilities, but these are normally smaller amounts. Where they occur, they must be included in the calculation of working capital & the working capital ratio.

The working capital requirements of different businesses may vary widely.

Some businesses have little if any credit purchases or sales, while others will almost entirely buy & sell on credit.

Manufacturers will have inventories of raw materials, work in process at one or more levels & finished goods. Retailers will have stocks of items turning over at different rates. Farmers may watch their inventories grow &/or have stores of product awaiting transport or to feed animal stocks. Service providers should have lower levels of inventories, mainly assets, not inventory for sale.

Turnover of working capital components depends on the business cycle, how long it takes to convert raw materials into finished goods ready for sale. This can be a long time for a heavy engineering business, sometimes in excess of 12 months & for a new plantation it may be years.

Some of the factors relevant to the level on working capital are listed hereafter.

## HOW MUCH?



The amount of working capital a business needs depends on:

- ❖ Nature of the business
- ❖ Size
- ❖ Credit terms (both debtors & creditors)
- ❖ Length of operating cycle
- ❖ Seasonal fluctuations in supply or demand
- ❖ Inventory cycle



## CYCLES



The length of the operating & inventory cycles may depend on:

- ❖ Turnover
- ❖ Supply timing of inputs
- ❖ Seasonal fluctuations
- ❖ Production practices
- ❖ Logistics (distribution & transportation)



## DEBTORS

### DEBT CONTROL

An additional strategy, essential to the effective management of your business's performance, is the control of debts.

Debts can be:

1. debts owed to your business
2. debts you owe.



Managing debtors is an essential business activity. It can be difficult for some business owners to chase those who owe them money, particularly family & friends, but this is an important part of separating business & private activities.

Trade debtors, debtors & accounts receivable are substantially the same thing for a small business. The distinction is academic for a small business.

### DEBTOR RECORDS

Where sales are not for cash you will need to manage and control debtors. If you allow credit sale you may need these records:


- Credit application forms, if used
- Debtor accounts or similar records (cards)
- Debtor listing or reconciliations (double entry systems only)
- Aged debtor listing



If you were to implement a debtor system, what debtor information would you need?

1. Before working through the prescribed debtor records, make a list of what you think should be recorded in relation to debtors & their debts owed to you & remaining outstanding
2. Writing down the list on paper so you can compare it to that provided later


## DEBTOR RECORDS



Group exercise

What information do you think you might need in relation to each individual debtor?

List on whiteboard & discuss.



A debtor card, or ledger account, should be a simple record to detail:

- Personal information of the customer
- Sales transactions as they occur
- Payments received
- Credit limit for the customer

The record may be kept as hard or soft copy for those sufficiently skilled in spreadsheet applications & the form may look something like that presented hereafter.

# DEBTORS CARD (LEDGER ACCOUNT)



DEBTOR RECORD (LEDGER)					
Name _____					Account No. _____
Address _____					
Telephone (home) _____					
Telephone (mobile) _____					
Email _____					
TIN _____					Credit Limit: _____
Date	Particulars	Reference	Invoiced amount	Received amount	Balance owing
1/7/2013	Opening balance				\$ 407.18
5/7/2013	Invoice 1036		\$ 207.14		\$ 614.32
12/7/2013	Receipt C93			\$ 407.18	\$ 207.14

If you use a Ledger System the following would apply

Journal reference number

Debit

Credit



Information required includes:

- Business name
- Contact name & position
- Address
- Telephone numbers
- Email address
- TIN or other business registration number
- Account number, if used
- Credit limit approved
- Transaction dates, sales & payments
- Transaction details; either Invoice or receipt number
- Amounts owing per invoice
- Amounts paid per receipt
- Balance due
- Other information useful to the business, e.g.
  - Credit rating, if any
  - Preferred customer flag, if monitored
  - Other relevant historic information
- Journal reference number, if a ledger card (not mandatory)

**IMPORTANT:**

1. All debtors should have a limit to contain the level of risk to the business owner
2. Procedures should be put in place to ensure that limits are not breached accidentally
3. Limits should be withdrawn if, & when, amounts become unacceptably overdue



## DEBTORS LISTING



<b>DEBTORS LISTING</b>		
AS AT 31 July 2013		
Debtor Name	Amount	% of Total
Mereia Volavola	\$ 301.18	22.3%
Winnie Gauna	\$ 135.20	10.0%
Maake Komailevuka	\$ 248.90	18.5%
Erica Lee	\$ 206.56	15.3%
Bhavin Vagh	\$ 47.70	3.5%
Les Massey	\$ 409.15	30.3%
	<b>\$ 1,348.69</b>	<b>100.0%</b>



The debtor listing is simply a list of outstanding amounts at month end or date of list preparation. It should be checked against the aged debtor listing detailed below to ensure that all debts are included in the aged debtor listing.

## AGED DEBTOR SCHEDULE



<b>AGED DEBTORS SCHEDULE</b>						
As at 31 July 2013						
Amount outstanding						
(Credit period - 30 days)						
Name	Credit Limit	0-30 days	31-60 days	61-90 days	over 90 days	Total
Mereia Volavola	\$ 300.00	\$ 204.26		\$ 96.92		\$ 301.18
Winnie Gauna	\$ 300.00		\$ 135.20			\$ 135.20
Maake Komailevuka	\$ 300.00	\$ 98.65	\$ 45.36	\$ 104.89		\$ 248.90
Erica Lee	\$ 300.00	\$ 130.00	\$ 36.56			\$ 206.56
Bhavin Vagh	\$ 200.00	\$ 47.70				\$ 47.70
Les Massey	\$ 200.00		\$ 107.88		\$ 301.27	\$ 409.15
<b>Totals</b>		<b>\$ 300.61</b>	<b>\$ 345.00</b>	<b>\$ 201.81</b>	<b>\$ 301.27</b>	<b>\$ 1,348.69</b>



The aged debtor schedule or listing is a means of presenting clear information on all outstanding debts so management, the owner of the business, can make decisions about credit limits & follow up as required.

At a minimum, the aged debtor schedule should include:

- Date of preparation
- Debtor name
- Debtor credit limit
- Amounts due grouped monthly by age outstanding
- Total outstanding debt of each debtor as per the debtor listing
- Totals of debt outstanding for each monthly period

Any outstanding amounts must be followed up promptly to ensure that they are correct & to seek payment promptly. In the event of slow payments, one or more of the following actions may be applicable:

- Send letter seeking payment
- Telephone debtor seeking payment
- Cancellation or suspension of credit until payment received
- Part payments or payments over time, if only means of recovery
- Legal action where unreasonably outstanding for too long
- Write off, if recovery efforts have failed & there is very low likelihood of collection

An illustrative debt collection procedure is as follows:

1. Have clear terms & conditions which:
  - a. specify how & when payments are to be made
  - b. outline any penalties for late payments, including the rate of interest & fees
  - c. disclose any additional fees that may apply to payments, such as credit card fees
  - d. are clearly printed on all quotes, estimates, contracts & invoices
  - e. meet your business needs
  - f. include no illegal or unfair terms
2. It is good practice to have customers sign acceptance of your terms & conditions before providing any goods &/or services
3. Send invoice on the day goods or services are provided &, if possible, include with them.
4. Consider providing a reminder to your customers before the payment due date to ensure they remember to pay on time.
5. Send a polite letter requesting payment as the debt is now overdue.
6. Also, get in touch with your customer as soon as their invoice is overdue in case there is a reason for not paying. Try to negotiate a revised deadline for them to pay. Confirm any agreement in writing.
7. If still no payment, send a letter of demand outlining the amount overdue, the deadline for payment & the action you will take if they fail to pay on time. Keep a copy of the letter as evidence if you need to make a claim in court.
8. Start legal proceedings or hire a debt collector as per your letter of demand.



## **DEBTOR EXERCISE**

Individual exercise (Activity 1.5.1), but with group participation & assistance acceptable.

Using the list of debtors and formats provided complete the following:

1. Debtor listing
2. Aged debtor schedule
3. For each debtor, advise what action is appropriate.



## Activity 1.5.1

### DEBTORS LISTING & AGED DEBTOR SCHEDULE

#### Exercise

At 31 January 2013, the current list of sales invoices on credit are as follows:

Date	Customer	Invoice no.	Amount (\$)
10-Sep-12	A Loane	1454	106.99
29-Nov-12	C Iqbal	1478	167.95
14-Dec-12	S Wong	1482	210.00
15-Dec-12	Z Gerrard	1483	450.50
23-Dec-12	C Iqbal	1487	214.45
2-Jan-13	M Iona	1490	299.90
5-Jan-13	A Loane	1501	455.55
15-Jan-13	Z Gerrard	1506	450.50

#### DEBTORS LISTING

AS AT 31 January 2013

Debtor Name	Amount	% of Total
Z Gerrard	\$ 901.00	38.2%
M Iona	\$ 299.90	12.7%
C Iqbal	\$ 382.40	16.2%
A Loane	\$ 562.54	23.9%
S Wong	\$ 210.00	8.9%
	\$ 2,355.84	100.0%

#### AGED DEBTORS SCHEDULE

As at 31 January 2013

Name	Credit Limit	Amount outstanding (Credit period - 30 days)				Total
		0-30 days (Jan)	31-60 days (Dec)	61-90 days (Nov)	over 90 days (Oct or prior)	
Z Gerrard	\$ 1,000.00					
M Iona	\$ 500.00					
C Iqbal	\$ 250.00					
A Loane	\$ 500.00					
S Wong	\$ 500.00					
Totals						

Participants are required to complete the debtor listing & the aged debtor schedule provided in landscape format. Participants are to be allowed time to prepare the reports requested.

What follow up action is required by the business owner based on the any breach of credit limit, the amount outstanding&the time outstanding for each.


The reports are not the end, but are a means to the end.The necessary follow up action being taken to collect debts& manage credit limits is animportant part of the management procedure. Reports deliver a series of messages. They do not make decisions on what action is appropriate afterwards; the owner or manager does.

## CREDITORS

### CREDITOR RECORDS

Where purchases are not for cash you will have a need to ensure you make payments in a timely manner. You may need the following records:

- Creditor accounts or similar records (cards)
- Creditor listing
- Payment due diary



As this is the only free loan (remember that this is what credit amounts to – A FREE LOAN) that a business is likely to receive, it is recommended that debts be paid when due, not early (unless sufficient discount is offered) & not late. The businesses reputation is at stake. Your personal reputation is at stake.

If your intention is to pay on due date, the information required is simpler than for debtors. Details required are:

- Business & personal information for communication & payment
- A list of names & amounts due.
- A diary of dates due for payments

If for some reason there is a problem in making a payment, it shows goodwill if the business owner contacts the creditor before the creditor starts chasing their money.

Explain the problem & seek a compromise solution.

Honest dealings with creditors will result in more harmonious business relations & may also result in higher credit limits.

The records required are simple as per the slide. An example of a diary follows.

## CREDITOR RECORDS



Diary of payments due		
as at 31 July 2013		
Due date	Amount	Due to
7-Aug	\$ 200.25	Jet-Set Timber Co
11-Aug	\$ 306.58	Hansen (Fiji)
15-Aug	\$ 93.00	Vodaphone
16-Aug	\$ 47.60	Countup Supermarket
23-Aug	\$ 209.10	Pacific Blue Ltd
25-Aug	\$ 108.63	A Patel
15-Sep	\$ 416.88	Jet-Set Timber Co
18-Sep	\$ 293.34	Pacific Blue Ltd
	<b>\$ 1,675.38</b>	



The reconciliation of creditor records to the books of account is also periodically recommended. There is always a risk of error or fraud if the business has staff handling these transactions,

## INVENTORY

Periodically inventory or stock on hand must be measured in terms of both quantities & value. The method used will, in part be determined by the level of control over inventories that is required by the business owner.

### Recording Methods


The detailed information kept on inventory or stock depends on the nature of the business, the number, type & volume of items sold & whether family or employees are involved. There are several ways of recording & managing stock, but for an SME the most common method used is the “periodic” method as follows:

1. Record purchases at cost as they occur
2. Do a physical stocktake at the end of the period to be measured
3. Record stocktake value based on at lower of cost or net realisable value (where resale value is less than cost, usually due to damage, wear & tear or becoming close to “use by” date)

To achieve an accurate & reliable record of the movement of inventories, a business owner or manager may track stock in & out using a stock card based on a “perpetual” inventory system. This method is recommended for larger businesses & where employees are involved & allows the proprietor to more reliably record loss in stock values due to damaged, lost, or stolen items.

Whichever system is adopted the business owner should do periodic stocktakes to assess the value of their stock.

## INVENTORY




**Recording methods**

- Physical (periodic) Inventory System
- Perpetual Inventory System

**Valuation methods**

- Specific identification
- FIFO
- Weighted average



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Once the number of units of inventory is recorded, a valuation method must be applied to record the monetary value. There are three main methods for valuing inventory as per the slide.

1. Specific identification applies where there are a few items, usually bulky in nature. Items are physically identified & listed at purchase cost
2. FIFO is a valuation method that is used when there are large inventories of items that are the same (homogeneous) & assumes the first purchased is the first sold, i.e. **what is left in inventory is the last items purchased**. Valuation is then made based on the most recent invoices for goods purchased
3. Weighted average is also a valuation method for large inventories of similar items that values all items held at the end of a period at the average price paid for inventory during the period as per all invoices for the period (This method will not be discussed in this module)

There are other valuation methods, but they are less commonly used & may not be accepted by Government taxation authorities. Therefore, care needs to be taken if an owner wishes to adopt another method.


To illustrate the calculation using the FIFO inventory valuation method, let's consider the monthly purchases as per the following slide. What is the value of inventory at the end of August?

## INVENTORY

Calculate stock valuation using FIFO if the cost of purchases for month are:

Date	Quantity	Unit cost	Total Cost
2 August	25	20.90	522.50
9 August	16	22.00	352.00
17 August	24	20.40	489.60
26 August	22	21.50	473.00

What is the value of the 32 units of stock in store at 31 August?



**IMPORTANT: Remember that when applying FIFO, the last goods purchased are the ones assumed to be unsold &, therefore, remaining in the inventory or stock.**

The calculation is as follows.

## INVENTORY



If stock first in is first out, stock at the end of the period is the last purchased.

Last in:  $22 \times \$21.50 = \$473.00$

$10 \times \$20.40 = \underline{\$204.00}$

\$677.00

Any questions?



FIFO is the most commonly used & simplest perpetual inventory valuation method.

If we used weighted average for the valuation, the value we would use would be  $522.50 + 352.00 + 489.60 + 473$  divided by  $25 + 16 + 24 + 22$  equals 21.12 (rounded to the cent).

Stock at the end of the period would therefore be  $\$21.12$  times 32 equals 675.84.

## INVENTORY



### Process

1. Complete physical stocktake to identify quantities
2. Record valuation based on lower of:
  - a. Cost
  - b. Net realisable value



Having undertaken a physical stock count, valuation of inventory may be determined using FIFO or the weighted average. The only exception to this valuation method is where the valuation is, in total or in part, based on such lesser value as may be appropriate due to the goods being saleable only at a price below cost.

Where inventory is damaged or its value reduced for some other reason (where below cost) its estimated sales value or, technically speaking, “net realisable value” must be used.


## INVENTORY RECORDS

The following slide lists the documentation & records that a small business might use for ordering, recording, managing & valuing inventory.

### STOCK (INVENTORY) RECORDS

To assist you to manage your stock of goods for sale you may maintain the following records:

- Supplier catalogues and price lists
- Stock cards or purchase invoices/delivery dockets
- Stock count sheets



The detail kept on stock or inventory depends on the nature of the business.

There are several ways of recording & managing stock, but as previously suggested, for an SME, the simplest method available is to use the “periodic” method as follows:

- Record purchases at cost as they occur
- Do a physical stocktake periodically
- Record value based on stocktake at lower of net realisable value or cost.

You may also track stock in & out using a stock card perpetual inventory system. If this method is used it allows you to record discrepancies in inventory held, e.g. damaged, lost or stolen items.

Whichever system you use, you should do periodic stocktakes to assess the value of your stock.

An example of a stock card & stock count sheets follows.

## STOCK CARD



Stock item	Terracotta Potts			
Stock identification Number	P12			
	Maximum Stock:	60	units	
	Minimum Stock:	20	units	
Date	To/From	Units in	Units out	Units in stock
1-Jul				35
3-Jul	Sales		20	15
4-Jul	Supplier	40		55
11-Jul	Sales		12	43
21-Jul	Sales		22	21
27-Jul	Supplier	40		61
31-Jul	Sales		8	53



At a minimum, the stock card typically includes the following information:

- Item name (ID number, if there are a number of subtle variations)
- Maximum & minimum number of units to be held in stock to facilitate reordering
- Purchase & sale dates
- Record of items arriving & leaving inventory
- Current number of items in stock

The Record may also show where items are stored & at what number of items “in stock” re-order should take place. It might also include the name of the supplier & related contact information.

### NOTE FOR FACILITATOR

Ask the participants to state the consequence of:

1. Overstocking
2. Understocking

Answers:

1. Overstocking – lower cash in the bank, risk of stock becoming stale
2. Understocking – loss of sales to competitors, loss of customers (permanently)

## STOCK COUNT SHEET



				Sheet no. ....		
				Date .....		
Stock ID no.	Description of stock	Location	No. of units	Cost per unit (\$)	Total cost (\$)	Comments
17	Hose nozzles	B4	22	3.00	66.00	
20	Packets of insect coils	B5	18	4.20	75.60	
21	Liquid fertiliser	C1	9	11.50	103.50	
38	Pairs of gloves	C2	10	2.50	25.00	
42	Ceramic pots	C3	6	22.00	132.00	1 cracked
					402.10	



The stock count sheet is nothing more than a list of items held in stock at a given date. Sheets should be numbered so that later it can be verified that none are missing, an internal control measure.

If Inventory is given a stock number for identification, it should be included on the stock count sheet. Otherwise the following information should be included on the sheet **at the time the stocktake is conducted**:

- Name of the item of stock
- A location identifier – the shelf, block or other warehouse location or another means of locating the item(s) of stock
- The number of units of an item held in inventory

**After completion of the stocktake** the cost/value can be added to the stock count sheet using invoice values or an estimate of the impaired sales value. The inventory valuation is completed by calculating the total cost column using the data collected. Room for comment is advisable, especially where goods are damaged in some way or approaching their “use by” date.

# STOCK COUNTS



Why do a stock count?

In tables, write down reasons why it is a good idea to do periodic stock counts, one per post-it note.

List reasons on white board.

Discuss.



## NOTE FOR FACILITATOR

There are a number of ways for the facilitator to lead this discussion in a workshop.

1. Ask for answers from any participants
2. Ask each table to discuss & list reasons. Ask tables in turn for a reason. After asking all tables, ask again if there are any other suggestions
3. Ask each table to discuss & one representative from each to put reasons on a post-it note (one per note) & place on white board

The reasons for doing a stock count include:

- To determine movements for re-ordering purposes
- To confirm that actual quantities agree with Stock Cards
- To find shrinkage due to theft, wastage, entry errors or spoilage
- To confirm condition & quality
- To find near or out of date stock
- To provide a stock valuation for financial reporting.

## REPORTING INVENTORY

Once a business has an inventory valuation, this becomes their closing inventory for the period. The business then has sufficient information on inventories to complete the calculation of ‘gross profit’ in its financial statements as below.

### INVENTORIES (STOCK)



Sales receipts (Revenue)

Less Cost of goods sold (Expense)  
calculated as:

Opening inventories – start of period (Asset)  
**Plus** Purchases – additions to inventory (Expense)  
**Plus** Other costs acquiring inventory (Expense)  
**Less** Closing inventory – end of period (Asset)



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In summary, this is what the first part of an income statement looks like.

### INVENTORIES (STOCK)



Sales receipts (Revenue)

Minus Cost of goods sold (Expense)

Equals Gross Profit

OR


Sales – Cost of goods sold = Profit (Loss)



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Sales, cost of sales & inventories of goods for sale are reported in the annual accounts in statement format as per the example below.



## PRESENTATION IN ACCOUNTS

**Trading Statement for the period ended 30 June 2013**

Sales	50,000	
Less cost of goods sold		
Opening Inventory	4,500	
Purchases	24,200	
Freight In	1,000	
	29,700	
Less closing inventory	6,000	23,700
Gross Profit		26,300



Notes:

- To calculate cost of goods sold, or cost of sales, opening inventory is added to purchases & any other purchase related costs
- Closing inventory is subtracted, as these goods remain unsold.
- Other costs may include freight inwards & customs duty, but **not** freight out as this is a selling cost
- Cost of goods sold is subtracted from sales revenue to determine gross profit.

If presented separately this statement is called a “Trading Statement” as above. It is most frequently combined into a single & comprehensive “Profit & Loss Statement”.

## STOCK (INVENTORY) RECORDS

Participants to work through exercise (Activity 1.5.2) calculating inventory valuation & preparing a Trading Statement"

1. Calculate closing stock value
2. Complete Trading Statement
3. Calculate Cost of Goods Sold & make comments



### NOTE FOR FACILITATOR

The activity that follows is designed to give participants practical experience calculating an inventory valuation & creating a trading account using the information.

Remind participants that the values in the activity ignores VAT/GST.

## Activity 1.5.2

### Calculating the value of inventory & preparing a Trading Statement

#### THE TASKS:

#### Task 1

The Big Store, Savusavu, Fiji, uses a periodic inventory system and for the sale of all items uses the first-in, first-out method to determine cost. It purchases from a range of preferred suppliers based on price & quality. Answer the following:

1. Calculate the value of inventory of Sulus on hand at 30 June 2013
2. Determine the cost of goods sold for the six months ended 30 June 2013
3. Complete the trading statement for Sulus the period ended 30 June 2013 below

Total purchases for six months to 30 June	\$
Total sales for the six months to 30 June	4,172
Freight costs paid on inventories received to 30 June	11,256
	215

Stocktake information:

On hand 31 December 2012	50 units	588
On hand 30 June 2013	56 units	?

Accounts payable provided the following details of purchases made in May and June for this item:

17 May	40 units @ \$11.25
4 June	46 units @ \$12.50
23 June	36 units @ \$12.00

#### The Big Store

#### Sulu Trading Statement for the six months ended 30 June 2013

	\$	\$
Sales		[ ]
Less cost of goods sold		
Opening Inventory		
Purchases	[ ]	
Freight In	[ ]	
Less closing inventory	[ ]	[ ]
Gross Profit		[ ]

## Task 2

### Exercises on Inventory & Cost of Goods Sold

From the four (4) consecutive weeks of bar trading, the following data was obtained. Complete the population of the following table & answer the questions to follow

	Week One	Week Two	Week Three	Week Four
<b>Opening Stock</b>	247.89			
<b>Purchases</b>	1,375.00			
<b>Closing Stock</b>	474.90	704.88	388.00	1,897.20
<b>COGS</b>		2,602.00	1,463.35	2,780.00

Make three (3) clear observations based on the data above.

1 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

3 \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### NOTE FOR FACILITATOR

The facilitator can handle this exercise in one of two ways, depending on the knowledge & skills shown by participants to date.

- If participants are capable, simply allow them time to complete the exercise as presented, taking questions as they arise, & sharing information where necessary. Then work through it with the focus in Task 2 on the comments made.
- If in doubt, split the tasks into smaller parts.
  1. Task 1: Ask participants to calculate the value of the closing inventory
  2. Task 1: Ask participants to complete the statements
  3. Task 2: Ask participants to complete the Table, make observations & discuss in groups what the numbers mean & prepare comments
  4. Task 2: Ask a member of each group to disclose an observation of the group. Offer any observations not raised by the group after their observations are exhausted.

## ESTIMATING WORKING CAPITAL

Working Capital = Debtors + Inventory - Creditors

Working Capital Ratio = Debtors + Inventories / Creditors

The above are generally the calculations made to calculate working capital.

### ESTIMATING WORKING CAPITAL



There are two common ways to estimate working capital. These are:

1. Calculate from the balance sheet
  - a. Working Capital = Current Assets – Current Liabilities
  - b. Working Capital Ratio =  $\frac{\text{Current Assets} \times 100}{\text{Current Liabilities}}$

2. Sales percentage method

Working Capital = Sales x Estimated Working Capital required%



# ESTIMATING WORKING CAPITAL



Calculate from the balance sheet

Balance Sheet			
Cash	2,000	Creditors	12,000
Debtors	17,000	Short-term loan	10,000
Inventory	11,000	Mortgage	25,000
Property, plant & equipment	56,000		
<b>TOTAL ASSETS</b>	<b>86,000</b>	<b>TOTAL LIABILITIES</b>	<b>47,000</b>

What is our working capital?

What is the working capital ratio?



Working Capital = Cash plus Debtors + Inventory – Creditors – Short-term Loan

$$= \$2,000 + \$17,000 + \$11,000 - \$12,000 - \$10,000$$

$$= \$30,000 - \$22,000$$

$$= \$8,000$$

Working Capital Ratio =  $\$30,000 / \$22,000$


$$= 1.36$$

Not a strong ratio, although debtors should convert to cash.


Which would you prefer, a high level of debtors or inventories? Normally debtors as these should convert to cash, while inventories may be slower & the risk is higher.

## CASH CONVERSION CYCLE

### CASH CONVERSION CYCLE



- Indicates the amount of time it takes to convert activities requiring cash back into cash
- The longer your cash conversion cycle, the more financing you need to support the operating cycle of your business
- Key components of the cash conversion cycle are:
  1. **Debtor Days:** How quickly you receive payment from customers
  2. **Creditor Days:** How quickly you make payment to suppliers
  3. **Inventory Days:** How long you store finished goods before selling them



We previously looked at the impact on cash in the bank account of the other major components of working capital:

- Debtors
- Creditors
- Inventories

There are measures of efficiency related to these components of working capital as listed above that may be calculated & used to compare the results. These calculations follow.

The result of each measure is a calculation in measured in days. For debtors & inventories, the shorter the period of days, the better the performance. Different industries & different businesses may use different benchmarks of performance, e.g. retailers should turn inventory over rapidly while an engineering business may have a much slower inventory turnover.

The important thing is to take the measurement, use it for budget purposes & compare it with other relevant benchmarks, where available, such as:

- Past performance
- Competitors
- Industry averages

## CALCULATING CCC



Days Receivable	Days Payable	Days Inventory
$\frac{\text{Accounts Receivable}}{\text{Sales on Credit}} \times 365$	$\frac{\text{Accounts Payable}}{\text{Cost of Goods Sold}} \times 365$	$\frac{\text{Inventory}}{\text{Cost of Goods Sold}} \times 365$



The exercise that follows is designed to check that participants can calculate the ratios discussed & understand the result.

## CASH CONVERSION CYCLE AN EXAMPLE



Participants are to answer questions on cash conversion cycles for My Business (Activity 1.5.3)

Discuss answers





## Activity 1.5.3

CALCULATION OF DAYS IN CASH CONVERSION CYCLE				MY BUSINESS	
				As at 30/06/2013	As at 30/06/2012
<b>ASSETS</b>					
Current					
	Cash		10,000		4,000
	Accounts Receivable		30,000		24,000
	Inventory		15,000		12,000
	<b>Total Current Assets</b>		<b>55,000</b>		<b>40,000</b>
Non-Current					
	Land		110,000		107,000
	Equipment		20,000		15,000
	Motor Vehicle		8,000		8,000
	Intangible Assets		5,000		4,500
	Other		0		0
	<b>Total Non-Current Assets</b>		<b>143,000</b>		<b>134,500</b>
	<b>Total Assets</b>		<b>198,000</b>		<b>174,500</b>
<b>LIABILITIES</b>					
Current					
	Accounts Payable		12,000		11,000
	<b>Total Current Liabilities</b>		<b>16,000</b>		<b>11,000</b>
Non-Current					
	Mortgage		45,000		45,000
	Other		7,000		4,000
	<b>Total Non-Current Liabilities</b>		<b>52,000</b>		<b>49,000</b>
	<b>Total Liabilities</b>		<b>68,000</b>		<b>60,000</b>
	<b>Net Assets</b>		<b>130,000</b>		<b>114,500</b>
				<b>Year ended 30/06/2013</b>	<b>Year ended 30/06/2012</b>
<b>REVENUE</b>					
	Credit Sales		175,000		162,000
	Other Revenue		0		0
	<b>Total Revenue</b>		<b>175,000</b>		<b>162,000</b>
	<b>Cost of Sales</b>		<b>102,000</b>		<b>99,000</b>
	<b>Gross Profit</b>		<b>73,000</b>		<b>63,000</b>
Using the above information for My Business, calculate <b>for both years</b> the following:					
1	Working capital				
2	Working capital ratio				
2	Days receivable				
3	Days inventory				
Is the performance in 2013 better than 2012? Discuss.					

## ANSWERS TO ACTIVITIES

### Activity 1.5.1

ANSWER						
DEBTORS LISTING						
As at 31 January 2013						
Debtor Name	Amount	% of Total				
Z Gerrard	\$ 901.00	38.2%				
M Iona	\$ 299.90	12.7%				
C Iqbal	\$ 382.40	16.2%				
A Loane	\$ 562.54	23.9%				
S Wong	\$ 210.00	8.9%				
	\$ 2,355.84	100.0%				
AGED DEBTORS SCHEDULE						
As at 31 January 2013						
		Amount outstanding				
		(Credit period - 30 days)				
Name	Credit Limit	0-30 days	31-60 days	61-90 days	over 90 days	Total
Z Gerrard	\$ 1,000.00	\$ 450.50	\$ 450.50			\$ 901.00
M Iona	\$ 500.00	\$ 299.90				\$ 299.90
C Iqbal	\$ 250.00		\$ 214.45	\$ 167.95		\$ 382.40
A Loane	\$ 500.00	\$ 455.55			\$ 106.99	\$ 562.54
S Wong	\$ 500.00		\$ 210.00			\$ 210.00
Totals		\$ 1,205.95	\$ 874.95	\$ 167.95	\$ 106.99	\$ 2,355.84

#### Discussion of issues

- What is an appropriate follow up procedure?
- Letter &/or telephone contact & when
- Personal contact – when?
- An example of a procedure is as follows:
  - Letter after 30 days followed by telephone call 48 or 72 hours later
  - Phone call after, say, 50 days followed by letter after 60 advising all necessary recovery action will be taken without further notice if due amount not received within 7 or 14 days
  - Choose next action, e.g. debt collection or court action, & do it.
  - Email may be used in addition to either letters or phone calls.
- What regard should a debtor have for creditor payment policy, e.g. a 60 day policy? Accept this exception or require cash only & risk loss of customer – a management decision – if you accept the debtor profile will look like Z Gerrard above.
- How did Loane get last credit sale when an old one is outstanding & they are now outside their limit? Current procedures need revision. What action is to be taken against A Loane?
- What action is to be taken against C Iqbal? At a minimum cancel further credit until all due amounts are received

Actions against overdue debtors to include:

- Cancel credit until within limit or late payment(s) made
- Debt collector
- Legal action through a court

## Activity 1.5.2

# Calculating the value of inventory & preparing a Trading Statement

### Task 1

#### Inventory Valuation

$36 \times 12.00 = 432$   
 $20 \times 12.50 = 250$     Total = 682

#### The Big Store

#### Sulu Trading Statement for the six months ended 30 June 2013

	\$	\$
Sales		11,256
Less cost of goods sold		
Opening Inventory	588	
Purchases	4,172	
Freight In	215	
	4,975	
Less closing inventory	682	4,293
Gross Profit		6,963

### Task 2

	Week One	Week Two	Week Three	Week Four
<b>Opening Stock</b>	247.89	474.90	704.88	388.00
<b>Purchases</b>	1,375.00	2,831.98	1,146.47	4,289.20
<b>Closing Stock</b>	474.90	704.88	388.00	1,897.20
<b>COGS</b>	1,147.99	2,602.00	1,463.35	2,780.00

Make three (3) clear observations based on the data above.

1. Closing inventory is generally in the range \$250 to \$750, suggesting that there is a minimum level at which point reorder occurs at around \$500.
2. High closing inventory week 4 suggests an abnormal pattern, e.g. a special event or sale on what is normally the off week.
3. COGS shows fortnightly pattern, perhaps pay week for locals Bar needs to monitor to ensure stocks are sufficient.
4. Purchasing pattern matches COGS except for week 4 & should (may) be based on budgeted or forecasting of future sales to ensure appropriate to bar requirements

## Activity 1.5.3

CALCULATION +B5:G61OF DAYS IN CASH CONVERSION CYCLE			MY BUSINESS	
			As at 30/06/2013	As at 30/06/2012
<b>ASSETS</b>				
Current				
	Cash	10,000	4,000	
	Accounts Receivable	30,000	24,000	
	Inventory	15,000	12,000	
	<b>Total Current Assets</b>	<b>55,000</b>	<b>40,000</b>	
Non-Current				
	Land	110,000	107,000	
	Equipment	20,000	15,000	
	Motor Vehicle	8,000	8,000	
	Intangible Assets	5,000	4,500	
	Other	0	0	
	<b>Total Non-Current Assets</b>	<b>143,000</b>	<b>134,500</b>	
	<b>Total Assets</b>	<b>198,000</b>	<b>174,500</b>	
<b>LIABILITIES</b>				
Current				
	Accounts Payable	12,000	11,000	
	<b>Total Current Liabilities</b>	<b>12,000</b>	<b>11,000</b>	
Non-Current				
	Mortgage	45,000	45,000	
	Other	7,000	4,000	
	<b>Total Non-Current Liabilities</b>	<b>52,000</b>	<b>49,000</b>	
	<b>Total Liabilities</b>	<b>68,000</b>	<b>60,000</b>	
	<b>Net Assets</b>	<b>130,000</b>	<b>114,500</b>	
			Year ended 30/06/2013	Year ended 30/06/2012
<b>REVENUE</b>				
	Credit Sales	175,000	162,000	
	Other Revenue	0	0	
	<b>Total Revenue</b>	<b>175,000</b>	<b>162,000</b>	
	<b>Cost of Sales</b>	<b>102,000</b>	<b>99,000</b>	
	<b>Gross Profit</b>	<b>73,000</b>	<b>63,000</b>	
Using the above information for My Business, calculate <b>for both years</b> the following:				
1	Working capital (\$)	43,000	29,000	
2	Working capital ratio	4.6	3.6	
2	Days receivable	62.6	54.1	
3	Days inventory	53.7	44.2	
Is the performance in 2013 better than 2012? Discuss. No, because while working capital is better, the cash conversion cycle for both receivables inventories has deteriorated.				