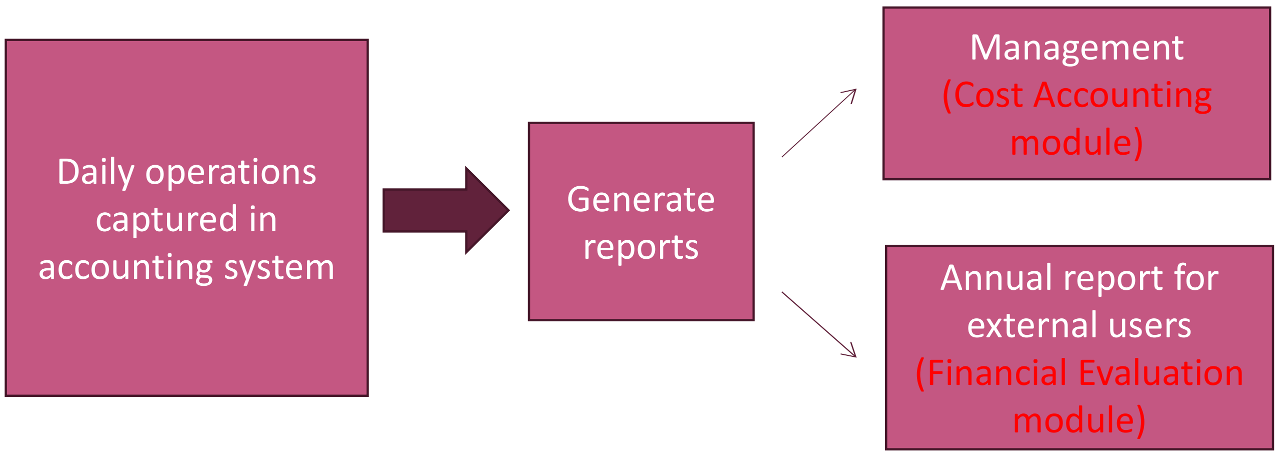
Business Finance
Session 7
Determination of Relevant Cost

Stellenbosch Business School
Responsible Leaders – we shape them.

Managerial accounting: objectives and outcomes



At the end of this session …

- What does Value Creation mean?
- How does Financial Accounting differ from Cost Accounting?
- Why is Cost information useful in an organisation?
- What are the latest trends in Cost Accounting?
- Ethical Implications of Cost Accounting
- What does the term “Cost” mean?
- How are Costs presented in the financial statements?
- How do we allocate Cost to the Product/Service?
- How are costs added at different stages of the Production Process?
- How do different costs behave?
- What is the difference between Absorption and Variable Costing?

LO 1-1

Value Chain

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 1-1 Describe the way managers use accounting information to create value in organizations.

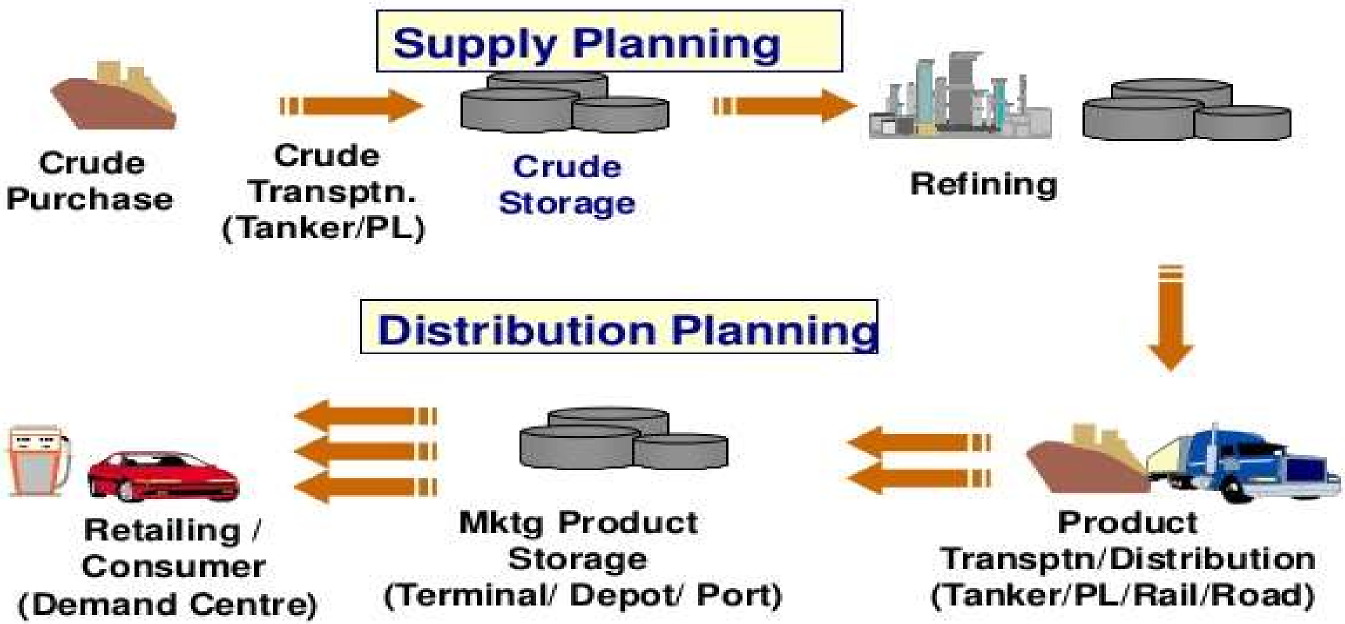
The **value chain** describes a set of activities that transforms raw materials and resources into the goods and services end users purchase and consume.

Value-Added Activities → **Those activities that customers perceive as adding utility to the goods or services they purchase.**

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

Stellenbosch Business School
Responsible Leaders – we shape them.

SUPPLY CHAIN IN PETROLEUM INDUSTRY



EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-1

The Value Chain Components

Stellenbosch Business School
Responsible Leaders – we shape them.

Research & Development	Design	Purchasing

Production

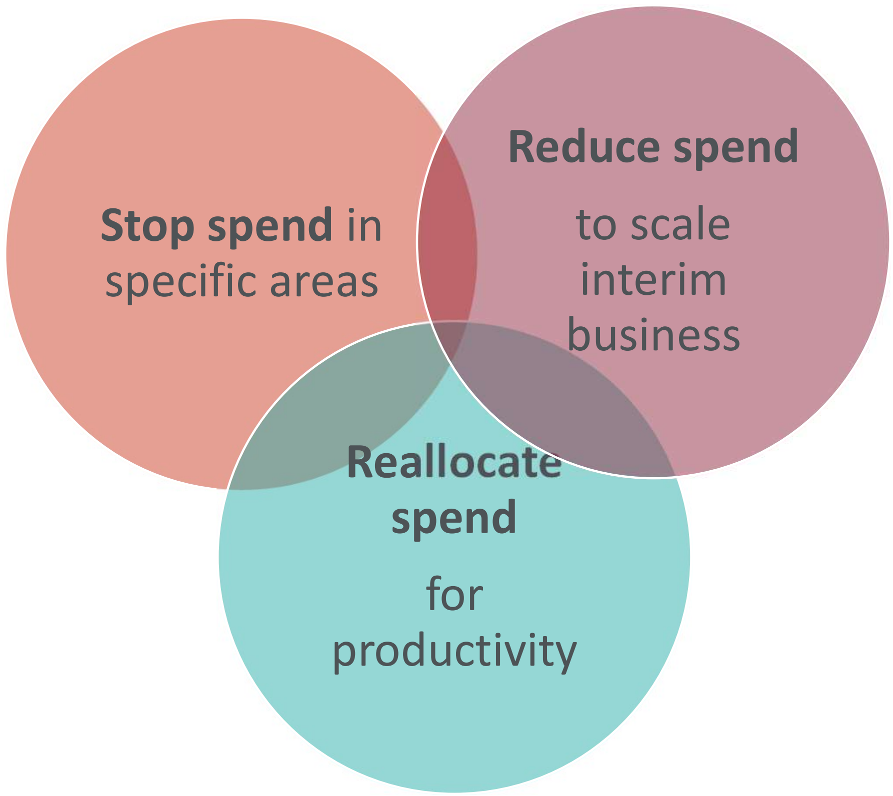
Marketing	Distribution	Customer Service

EQUIS ACCREDITED
AMBA ACCREDITED
AACSB ACCREDITED

Small group discussion (break-out rooms)
(source: Deloitte, 2020)

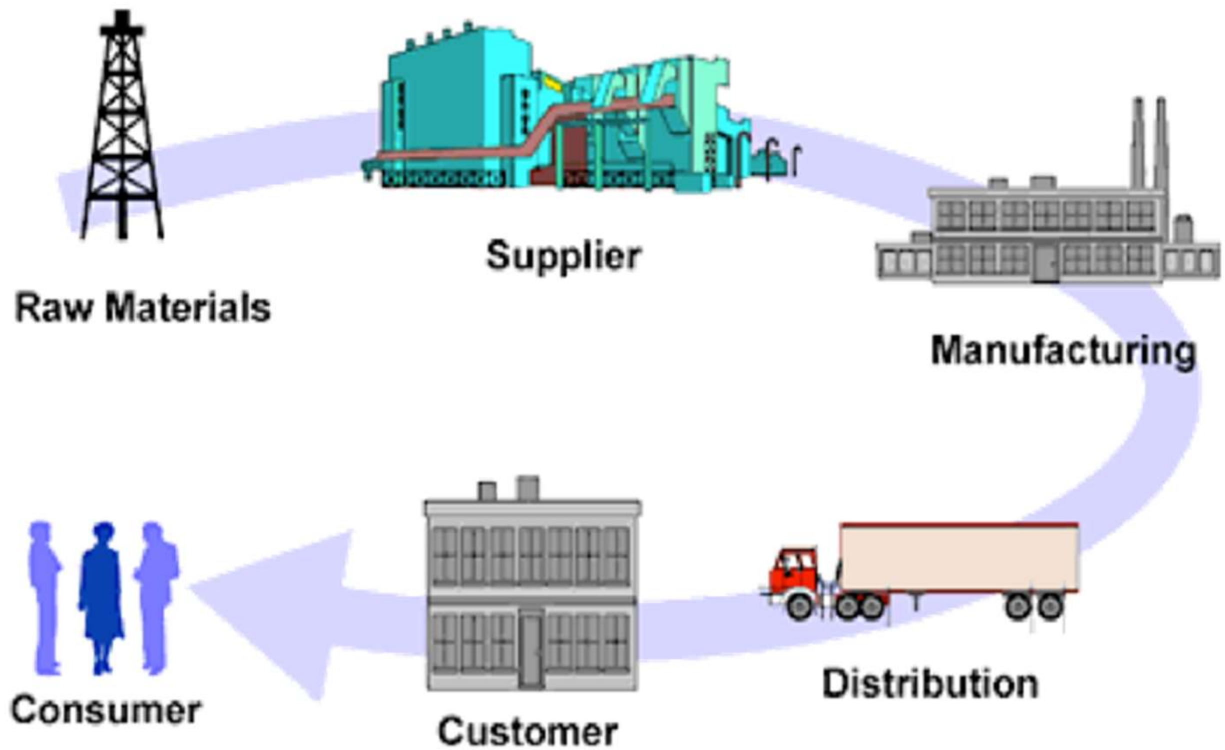
Stellenbosch Business School
Responsible Leaders – we shape them.

- How do we or can we apply *right-sizing* in my business' value chain?



EQUIS ACCREDITED
AMBA ACCREDITED
AACSB ACCREDITED

Value Chain: Supply chain + distribution chain



Example: Shoprite

Stellenbosch Business School
Responsible Leaders – we shape them.

- Sophisticated supply chain
- Outlets in 15 countries
- Strategically placed Distribution Centres linking vendors and outlets
- What are the benefits?

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-3

Managerial Decisions

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 1-3 How is cost information useful in an organisation?

Woolworths example

Individuals make decisions.

Decisions determine the performance of the organisation.

Managers use information from the accounting system to make decisions.

Owners evaluate organisational and managerial performance with accounting information.

WOOLWORTHS STATEMENT OF COMPREHENSIVE INCOME – YE 2018

Stellenbosch Business School
Responsible Leaders – we shape them.

Operating profit		5 259	6 206
Impairment due to re-assessment of David Jones assets	9	6 927	–
Profit on sale of property in Sydney, net of impairment		–	1 420
Profit on sale of property		–	1 762
Impairment due to sale of property		–	342
Investment income	2	71	96
Finance costs	3.6	1 124	1 256
(Loss)/profit before earnings from joint ventures and associate		(2 721)	6 466
Earnings from joint ventures	29	287	260
(Loss)/profit before tax	3	(2 434)	6 726
Tax	4	1 115	1 278
(Loss)/profit for the year		(3 549)	5 448

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

WOOLWORHTS STATEMENT OF FINANCIAL POSITION – YE 2018

Stellenbosch Business School
Responsible Leaders – we shape them.

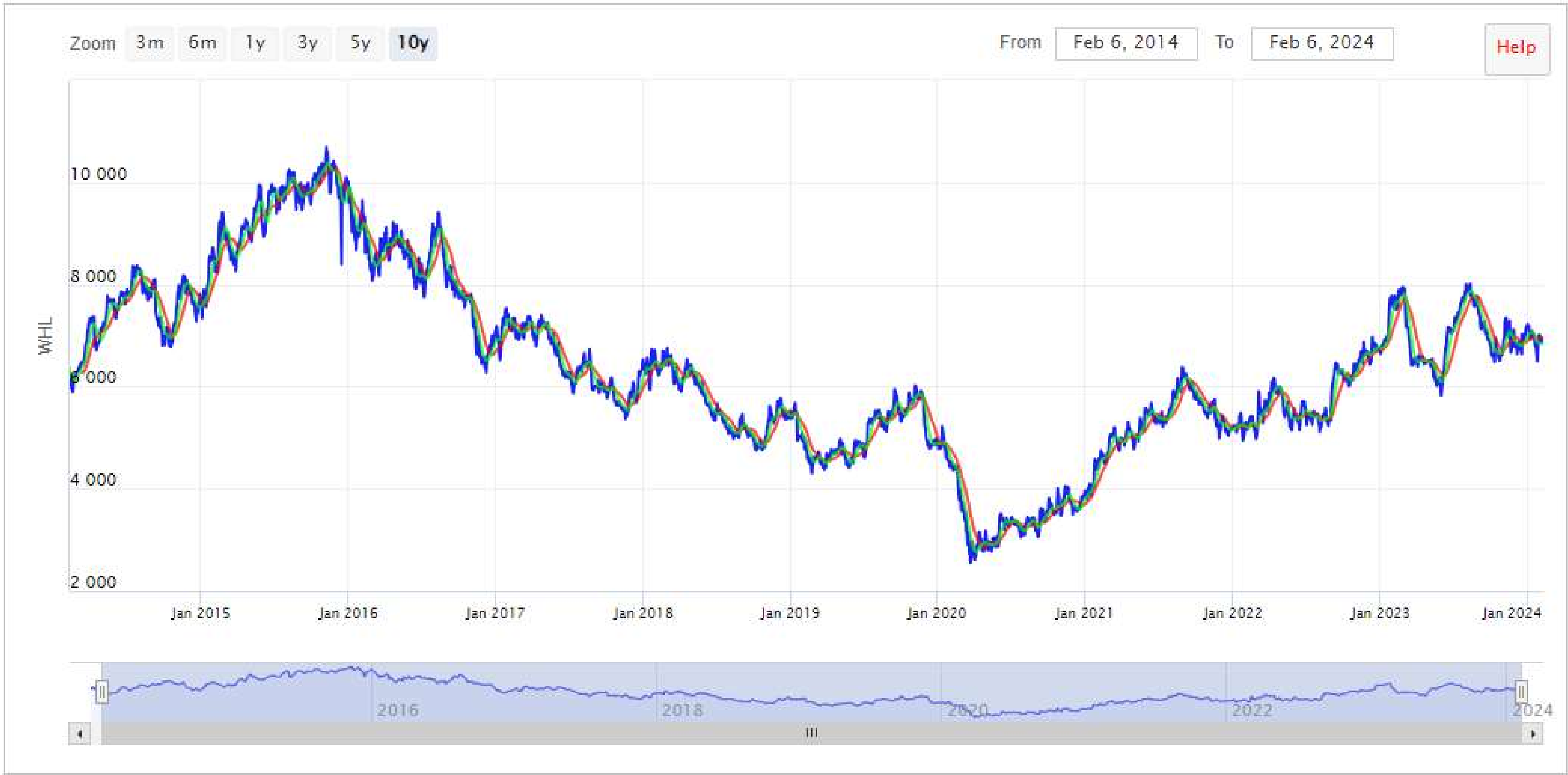
GROUP STATEMENT OF FINANCIAL POSITION

	Notes	At 24 June 2018 Rm	At 25 June 2017 Rm
ASSETS			
Non-current assets		28 650	34 706
Property, plant and equipment	8	13 959	13 846
Intangible assets	9	13 410	19 595
Investment in joint ventures	29	978	1 015
Fair value lease adjustment	13	59	65
Other loans	10	56	42
Derivative financial instruments	14	18	3
Deferred tax	11	170	140
Current assets		11 497	10 287
Inventories	12	7 542	6 990
Trade and other receivables	13	1 487	1 218
Derivative financial instruments	14	174	40
Tax	26.3	271	252
Cash and cash equivalents	26.4	2 023	1 787
TOTAL ASSETS		40 147	44 993

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

WOOLWORTHS 10 YEAR

Stellenbosch Business School
Responsible Leaders – we shape them.



EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 1-3

Differential Revenues and Costs

Stellenbosch Business School
Responsible Leaders – we shape them.

Revenues or costs that change in response to a particular course of action.

Differential revenues or costs change (differ) between actions.

EQUIS ACCREDITED
AMBA ACCREDITED
AACSB ACCREDITED

Case Study: Julia's Candle Shop

Stellenbosch Business School
Responsible Leaders – we shape them.

Projected Income Statement
For One Month

	Status Quo: Run Business "As Is"	Alternative: Associate with Supermarket		Difference
Sales revenue	R40,000	R56,000	a	R16,000
Costs:				
Wax	8000	11600	b	3600
Supplies	3000	4350	b	1350
Labour	6000	8700	b	2700
Utilities	2500	2750	c	250
Rent	7200	7200		0
Licensing fee	0	10000		10000
Other costs	3500	4200	d	700
Total costs	30,200	48,800		R18,600
Operating profits	R 9800	R 7200		R(2,600)

[a] Increase by 40%
[b] Increase by 45%
[c] Increase by 10%
[d] Increase by 20%

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-3

Costs for Control and Evaluation

A responsibility center is a specific unit of an organisation assigned to a manager who is held accountable for its operations and resources.

Stellenbosch Business School
Responsible Leaders – we shape them.

Julia Duvell
CEO

Gladys Nobadula
Manager Retail

Frank Chibane
Manager Wholesale

Income Statement for the month of July

	Retail division	Wholesale Division	Total
	R	R	R
Sales revenue	200,000	300,000	500,000
Divisional costs	90,000	170,000	260,000
Wax	20,000	60,000	80,000
Supplies	30,000	65,000	95,000
Salaries and wages	40,000	45,000	85,000
Divisional margin	110,000	130,000	240,000
Total general and administrative costs			150,000
General manager salary (Julia)			60,000
General administrative costs			90,000
Operating profit			90,000

Analysis			
Profit %	55%	43%	18%

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

Stellenbosch Business School

Responsible Leaders – we shape them.

Julia's Candle Shop

Income Statement for the month of June

	Actual	Budget	Difference
	R	R	R
Sales revenue	40,000	42,000	(2,000)
Costs:			
Wax	8,000	8,500	(500)
Supplies	3,000	2,500	500
Labour	6,000	5,500	500
Utilities	2,500	2,400	100
Rent	7,200	7,200	-
Licensing fee	200	210	(10)
Other costs	5,000	3,500	1,500
Total costs	30,200	29,810	390
Operating profits	9,800	12,190	(2,390)
Number of candles sold	5,000	5,000	-

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-4

Trends in Cost Accounting

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 1-4 Identify current trends in cost accounting.

1. Research and development
2. Design
3. Purchasing
4. Production
5. Marketing
6. Distribution
7. Customer service
8. ERP – Enterprise resource planning
9. Creating value in the organization

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-4

Cost Accounting in Research and Development

Stellenbosch Business School
Responsible Leaders – we shape them.

Lean manufacturing techniques are not simply about production.

Companies partner with suppliers in the development stage to ensure cost-effective designs for products.

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-4

Cost Accounting in Purchasing

Stellenbosch Business School
Responsible Leaders – we shape them.

Performance measurement indicates how well a process is working.

Benchmarking methods measure products, services, and activities against the best performance.

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 1-4

Cost Accounting in Production

Stellenbosch Business School
Responsible Leaders – we shape them.

A lean accounting system provides measures at a work cell or process level.

JIT is an inventory system designed to lower the cost of maintaining excess inventory.

EQUIS ACCREDITED
AMBA ACCREDITED
AACSB ACCREDITED

LO 1-4

Cost Accounting in Distribution

Stellenbosch Business School
Responsible Leaders – we shape them.

Outsourcing occurs when a firm's activities are performed by another organization or individual in the supply or distribution chain.

Nikon, for example, relies on UPS for distribution.

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 2-1

Ethical Issues

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 1-5 Ethical Issues for Accountants

South Africa: King report

EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 2-1

What is a Cost?

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 2-1 Explain the basic concept of "cost."

Cost is a sacrifice of resources.

EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 2-1

Cost versus Expenses

Stellenbosch Business School
Responsible Leaders – we shape them.

Cost

Outlay Cost
Past, present, or future cash outflow

Opportunity Costs
Forgone benefit from the best alternative course of action

Expense
Cost charged against revenue in an accounting period

EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 2-1

Presentation of Costs in Financial Statements (Service)

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 2-2 Explain how costs are presented in financial statements.

Cape Town Tours Travel Agency	
Income Statement	
For the year ended 31 December 2016	
	Rands
Service Revenue	1,500,400
Cost of services sold	679,000
Gross profit margin	821,400
Marketing and administrative costs	125,000
Operating profit (EBIT)	696,400

Cost of billable hours

The excess of operating revenue over costs necessary to generate those revenues

EQUIS ACCREDITED · ASSOCIATION OF MBAS ACCREDITED · AACSB ACCREDITED

LO 2-1

Presentation of Costs in Financial Statements (Service)

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 2-2 Explain how costs are presented in financial statements.

Cape Town Tours Travel Agency			
Income Statement			
For the year ended 31 December 2016			
	Rands		
Service Revenue	1,500,400		
Cost of services sold	679,000		
Gross profit margin	821,400	55%	GP%
Marketing and administrative costs	125,000		
Operating profit (EBIT)	696,400	46%	OP%
Finance charges	48,000		
Net profit before income tax	648,400		
Income Tax	181,552		
Net profit after tax	466,848	31%	NP%

EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 2-2

Presentation of Costs in Financial Statements (Retail)

Stellenbosch Business School
Responsible Leaders – we shape them.

The Clothing Shop		
Income Statement		
For the year ended 31 December 2016		
		Rands
Sales Revenue		4,501,200
Cost of good sold (see below)		2,376,500
Gross profit margin		2,124,700
Marketing and administrative costs		500,000
Operating profit (EBIT)		1,624,700

Expense assigned to products sold during a period

		Rands
Beginning inventory (1 Jan 2016)		203,500
Cost of good purchased		2,723,000
Merchandise cost	2,598,000	
Transport in cost	1[illegible]5,000	
Cost of goods available for sale		2,926,500
Less cost of good in ending inventory (31 Dec 201		550,000
Cost of goods sold		2,376,500

Eg import taxes

EQUIS ACCREDITED
AMBA ACCREDITED
AACSB ACCREDITED

LO 2-2

Presentation of Costs in Financial Statements (Manufacturing)

Stellenbosch Business School
Responsible Leaders – we shape them.

Cost incurred to manufacture the product sold

Product costs **recorded** as "inventory" when cost is **incurred**

Expense when sold

JACKSON GEARS
Income Statement
For the Year Ending December 31, Year 2
($000)

Sales revenue	$20,450
Cost of goods sold (see Exhibit 2.8)	13,100
Gross margin	$ 7,350
Less marketing and administrative costs	3,850
Operating profit before taxes	$ 3,500

Period costs recorded as an expense in the period the cost is incurred

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 2-2

Product versus Period Costs

Stellenbosch Business School
Responsible Leaders – we shape them.

Two types of manufacturing costs:

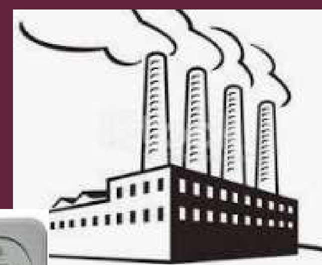
Product costs: Costs related to inventory	Period costs: Non-manufacturing costs related to the firm

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 2-2

Product versus Period Costs

Stellenbosch Business School
Responsible Leaders – we shape them.



Product costs:
Costs related to inventory

Product costs:
All costs incurred :
To bring inventory to location
And condition ready to sell

EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 2-2

Product versus Period Costs

Stellenbosch Business School
Responsible Leaders – we shape them.

Product costs:
Costs that are recorded as an **asset** in **inventory** when incurred and **expensed** as Cost of Goods Sold **when sold**

Period costs:
Costs recognized for financial reporting when incurred (expensed immediately)

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 2-2

Product (manufacturing) Costs: Direct and Indirect Costs

Direct costs:
Costs that, for a reasonable cost, can be directly traced to the product.

- **Direct materials:**
  Materials directly traceable to the product
- **Direct labour:**
  Work directly traceable to transforming materials into the finished product

LO 2-2

Product (manufacturing) Costs: Direct and Indirect Costs

Stellenbosch Business School
Responsible Leaders – we shape them.

Indirect costs:
Costs that cannot reasonably be directly traced to the product.

Manufacturing overhead:
All production costs except direct materials and direct labour.

- Indirect materials
- Indirect labour
- Other indirect costs

Eg depreciation

EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

LO 2-2

Non-manufacturing (Period) Costs

Stellenbosch Business School
Responsible Leaders – we shape them.

Recognised as **expenses** when the costs are incurred

Marketing:
Costs necessary to sell the products

- Advertising
- Sales commissions
- Transport costs(OUT*)

Administrative:
Costs necessary to operate the business

- Executive salaries
- Data processing
- Legal costs

EQUIS ACCREDITED   AMBA ACCREDITED   AACSB ACCREDITED

LO 2-3

Cost Allocation

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 2-3 Explain the process of cost allocation.

It is the process of assigning indirect costs to products, services, business units, etc.

EQUIS ACCREDITED
AMBA ACCREDITED
AACSB ACCREDITED

LO 2-3

Cost Allocation

1. Define the cost pool:
   The collection of costs to be assigned to cost objects

2. Determine the cost allocation rule:
   The method used to assign costs in the cost pool to cost objects
   - Example based on revenue, square meters, time

3. Assign the costs in the cost pool to the cost object:
   Any end to which a cost is assigned – product, product line, department, customer, etc.

LO 2-4

Details of Manufacturing Cost Flows

Stellenbosch Business School
Responsible Leaders – we shape them.

LO 2-4 Understand how material, labor, and overhead costs are added to a product at each stage of the production process.

Product costs are recorded in inventory when costs are incurred.

A manufacturing company has three inventory accounts:

1. Raw Materials Inventory:
   Materials purchased to make a product
2. Work-in-Process Inventory:
   Products currently in the production process, but not yet completed
3. Finished Goods Inventory:
   Completed products that have not yet been sold

EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 2-4

Inventory Accounts - The Balance Sheet

Stellenbosch Business School
Responsible Leaders – we shape them.

	Beg. RM inventory
+	Purchases
=	Raw materials available for production
–	Ending RM inventory
=	Raw materials transferred to WIP

	Beg. WIP inventory
+	Direct materials transferred from raw materials
+	Direct labor
+	Manufacturing overhead
=	Total manufacturing costs
–	Ending WIP inventory
=	Costs of goods completed and transferred to finished goods (or cost of goods manufactured)

	Beg. FG inventory
+	Cost of goods completed and transferred from WIP
=	Goods available for sale
–	Ending FG inventory
=	Cost of goods sold

To the Income Statement

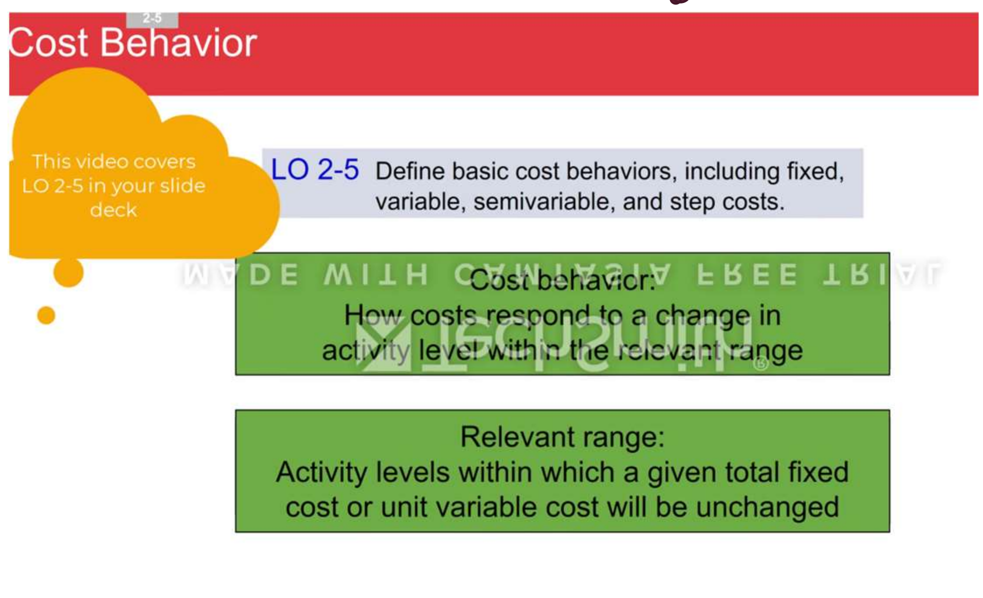
EQUIS ACCREDITED · AMBA ACCREDITED · AACSB ACCREDITED

Stellenbosch Business School
Responsible Leaders – we shape them.

- Cost Behaviour

- See Video loaded under this session

Watch on Learning Hub!

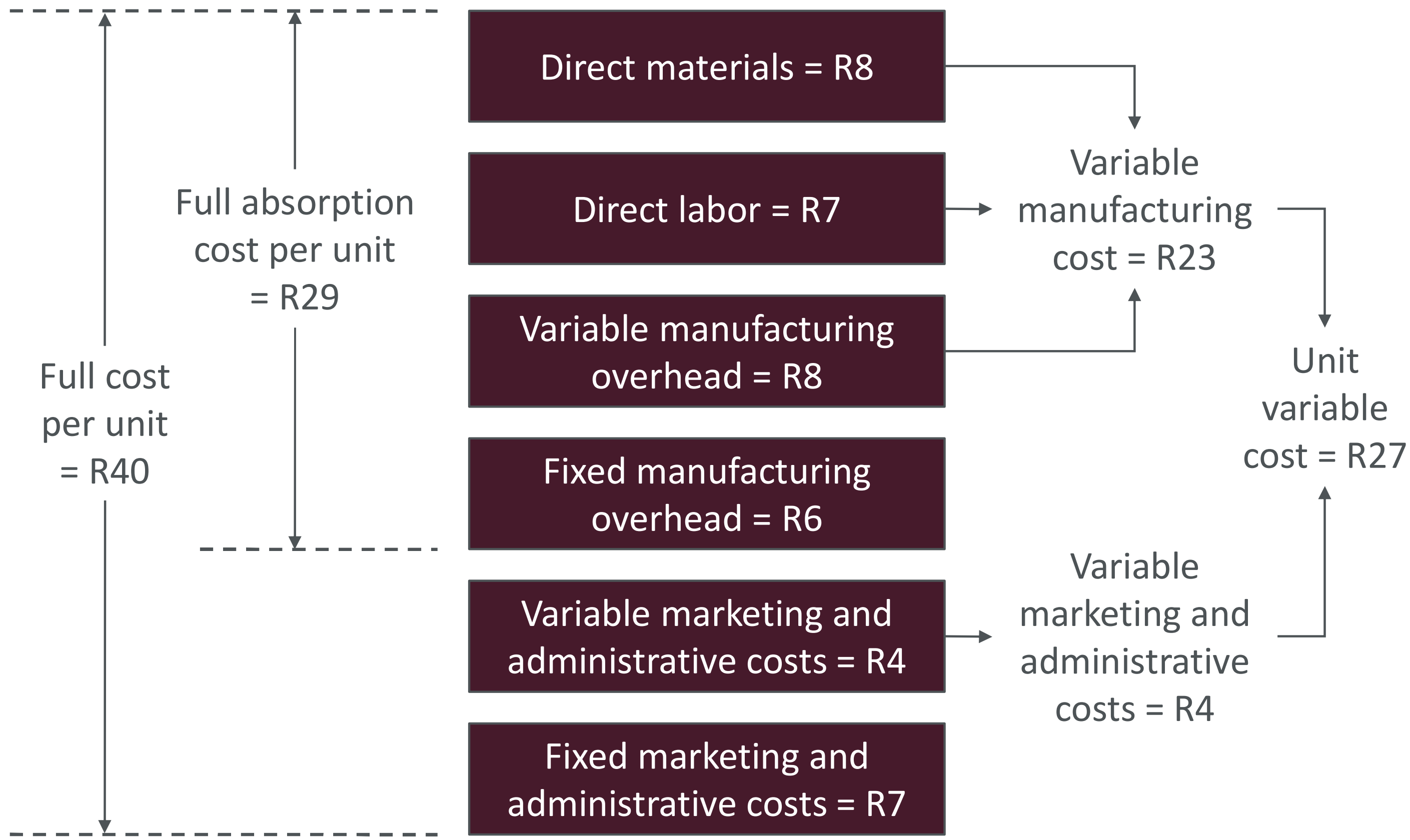


EQUIS ACCREDITED AMBA ACCREDITED AACSB ACCREDITED

LO 2-6

Components of Product Costs

Stellenbosch Business School
Responsible Leaders – we shape them.



LO 2-7

Making Cost Information Useful

Financial income statement	Contribution margin income statement
↓	↓
Full absorption costing	Variable costing
↓	↓

Sales price	Sales price
– Full absorption cost	– Variable costs
= Gross margin (profit)	= Contribution margin

demo

LO 2-7

Income Statement: Full Absorption Costing

Stellenbosch Business School
Responsible Leaders – we shape them.

Sales revenue
– Cost of goods sold
= Gross margin (profit)
– Marketing and administrative costs
= Operating profit

Full absorption

Product costs: Variable and fixed manufacturing costs

Period costs

Variable and fixed marketing and administrative costs

LO 2-7

Income Statement: Variable Costing

Sales revenue
– Variable costs
= Contribution margin
– Fixed costs
= Operating profit

Variable costs: Variable manufacturing costs and variable marketing and administrative costs

Fixed costs: Fixed manufacturing costs and fixed marketing and administrative costs