Module One – An Introduction to Accounting

and the Accounting Equation

**Objectives**:

* the value to various groups in society of a knowledge of accounting
* the role of accounting in management
* the need for, use for, accounting information in decision making within any organization
* the accounting equation
* the basic layout of the P&L a/c (also called the income statement), the balance sheet and the cash flow statement
* the distinction between financial accounting and management accounting

**Accounting** may be defined as series of processes and techniques used to identify, measure and communicate economic information which users find helpful in making decisions.

**Accounting**:

* is a **Service function** – providers information to decision makers
* deals with **Economic Information** – usually expressed in money values (accountants deal with other stuff like raw tons etc.)
* Economic Information must be identified and then measured – sometimes easy (sales of car), sometimes hard (depreciation)
* is a **Communication Device** – accounting info must be relevant for the for the purposes for which it was designed, but them must also communicate information in a comprehensible way

**User of Accounting Information:**

* Directors – Effective employment of resources to maximize profit?
* Senior Execs – Are we managing money efficiently?
* Managers – Are our lines profitable? How could we increase profitability
* Employees – What should we be paid? Are our jobs secure?
* Shareholders – Should we buy or sell shares in the company?
* Analysts – Should we advise our shareholders to buy or sell?
* Creditors – Is company a good credit risk?
* Tax Man – How much tax should they be paying
* Public – Environmental questions

**The Accounting Equation:**

ASSETS=OWNERS EQUITY + LIABILITIES

|  |  |  |
| --- | --- | --- |
| **ASSETS** | **EQUITY** | **LIABILITIES** |
| Cash | Owners Equity | Creditors |
| Plant & Equipment | - Administrative Wages |  |
| Raw Material | +Profit |  |
| Processed Inventory | -Depreciation  |  |
| Labor for creation of product | -Cost of doing business |  |
| Finished Goods inventory | - Expenses like maintenance |  |
| - Depreciation to Plant & Equip |  |  |
| Debtors |  |  |

Balance Sheet:

|  |  |  |
| --- | --- | --- |
| **Fixed Assets** |  |  |
| Plant & Equipment at cost | 12000 |  |
| *Less* Depreciation | 500 | 11950 |
|  |  |  |
| Current Assets |  |  |
| Inventories | 5500 |  |
| Debtors  | 750 |  |
| Cash | 4960 |  |
|  | 11210 |  |
|  |  |  |
| *Less* **Current Liabilities** |  |  |
| Creditors | 3000 | 8210 |
| Net Assets of the company |  | 20160 |
|  |  |  |
| **Represented by:** |  |  |
| Capital Introduced | 20000 |  |
| Profits earned | 160 |  |
|  |  | 20160 |

Profit and Loss

|  |  |  |  |
| --- | --- | --- | --- |
| Sales |  |  | 750 |
| *Less*: Cost of Sales | Materials | 500 |  |
|  | Labor | 20 |  |
|  | Depreciation | 50 | 570 |
| Gross Profit |  |  | 180 |
| Less: Selling & Admin Costs | Advertising | 10 |  |
|  | Salaries | 10 | 20 |
| Net Profit |  |  | 160 |

Cash Flow Statement:

|  |  |  |
| --- | --- | --- |
| Sources of Cash |  |  |
| Profit from operations | 160 |  |
| Adjusted for non-cash items (Depreciation) | 50 |  |
|  |  | 210 |
| Capital Introduction | 20000 |  |
| Increase in Creditors | 3000 | 23000 |
|  |  | 23210 |
| Uses of Cash |  |  |
| Purchase of Plant | 12000 |  |
| Increase in Debtors | 750 |  |
| Increase in Inventory | 5500 | 18250 |
| Closing balance of cash |  | 4960 |
|  |  |  |
|  |  |  |

Example:

Action 1

50000 (CASH) = 40000 (EQUITY) + 10000 (Loan)

Actions2:

16000 (CASH) + 5000 (Plant & Equip) + 25000 (Warehouse) +8000 (Raw Materials) = 40000 + 4000 (Creditors) + 10000 (Loan)

Action 3:

15400 (CASH) + 5200 (Plant & Equip) + 25000 (Warehouse) +4000 (Raw Materials) + 4400 (Finished goods Inv) = 40000 + 4000 (Creditors) + 10000 (Loan)

Action 4:

11400 (CASH) + 5200 (Plant & Equip) + 25000 (Warehouse) +4000 (Raw Materials) + 2200 (Finished goods Inv) + 4000 (Debtors) = 41800 + 10000 (Loan)

Action 5:

11200 (Cash) + 5400 (P&E) + 25000 (F&W) + 3000 (MV) + 4000 (RM) + 2200 (FGI) + 4000 (Debtors) = 41800 + 10000(Loan) + 3000 (Creditors)

Note: Purchase of Typewrite for 200 goes towards P&E

Action 6:

19000 (Cash) + 5400 (P&E) + 25000 (F&W) + 3000 (MV) + 4000 (RM) + 100 (Debtors) = 43500 + 10000(Loan) + 3000 (Creditors)

Note: 19000 = 11200 + 3900 (from debtors) + 3900 (from sales of FGI)

Action 7:

12600 (Cash) + 5400 (P&E) + 25000 (F&W) + 3000 (MV) + 6000 (RM) + 4300 (FGI) + 100 (Debtors) = 43400 (Equity) + 10000(Loan) + 3000 (Creditors)

Action 8:

No change

Action 9:

12600 (Cash) + 5400 (P&E) + 25000 (F&W) + 3000 (MV) + 6000 (RM) + 0 (FGI) + 3100 (Debtors) = 45100 (Equity) + 10000(Loan) + 0 (Creditors)

12600 (Cash) = 12600 (org. cash) + 3000 (for sale of FGI) – 3000 (pays off creditors)

Action 10:

11000 (Cash) + 5400 (P&E) + 25000 (F&W) + 3000 (MV) + 0 (RM) + 7000 (FGI) + 3100 (Debtors) = 44500 (Equity) + 10000(Loan) + 0 (Creditors)

Action 11:

11000 (Cash) + 4860 (P&E) + 25000 (F&W) + 2250 (MV) + 0 (RM) + 7000 (FGI) + 3000 (Debtors) = 43110 (Equity) + 10000(Loan) + 0 (Creditors)

Action 12:

16000 (Cash) + 4860 (P&E) + 20000 (F&W) + 2250 (MV) + 0 (RM) + 7000 (FGI) + 3000 (Debtors) = 43110 (Equity) + 10000(Loan) + 0 (Creditors)

16000 = 11000 (org cash) + 7000 (from sale of F&W) – 2000 (withdrawal of cash)

43110 = 43110 (org equity) + 2000 (profit from sale of F&W) – 2000 (withdrawal of cash)

Profit & Loss

|  |  |  |  |
| --- | --- | --- | --- |
| Sales |  |  | 13900 |
| Cost of Sales | Materials | 80001 |  |
|  | Labor | 700 |  |
|  | Depreciation | 540 | 9240 |
| Gross Profit |  |  | 4660 |
|  |  |  |  |
| Less General Expenses | Advertising | 400 |  |
|  | Audit | 200 |  |
|  | Repairs to Van | 100 |  |
|  | Bad Debt | 100 |  |
|  | Depreciation to MV | 750 | 1550 |
| Net Operations Profit |  |  | 3110 |
| Extraordinry Profits from sale of F&W |  |  | 2000 |
| Net Profit |  |  | 5110 |

1 8000 is made up only of the RM that ends up actually being sold:

RM Sold:

Action 4: Sells 2000 worth of RM

Action 6: Sells 2000 worth of RM

Action 9: Sells 4000 worth of RM

Note: these figures do not include the wages to create these goods

Balance Sheet

|  |  |  |
| --- | --- | --- |
| **Fixed Assets** |  |  |
| Factory & Warehouse | 20000 |  |
| P & E | 4860 |  |
| MV  | 2250 | 27110 |
|  |  |  |
| Current Assets |  |  |
| Finished Goods | 7000 |  |
| Cash | 16000 |  |
| Debtors | 3000 | 26000 |
|  |  |  |
|  |  | 53110 |
|  |  |  |
| Current Liabilities |  |  |
| - | 0 | 0 |
|  |  |  |
| Net Assets |  | 53110 |
|  |  |  |
| Represented by |  |  |
| Capital Introduced | 40000 |  |
| Net Profit | 5110 |  |
|  | 45110 |  |
| Less Drawings | 2000 |  |
| Owners Equity | 43110 |  |
| Long Term Loan | 10000 | 53110 |
|  |  |  |

Cash Flow (Income Statement)

|  |  |  |
| --- | --- | --- |
| Sources of Cash |  |  |
| Profits from Operations | 3110 |  |
| Adjusted for Non Cash items - Depreciation | 1290 | 4400 |
|  |  |  |
| Capital Introduction | 40000 |  |
| Long Term Loan | 10000 | 50000 |
| Sale of F&W |  | 7000 |
|  |  | 61400 |
| Uses of Cash |  |  |
| Purchase of Plant & E | 54001 |  |
| Purchase of MV | 3000 |  |
| F&W | 25000 |  |
| Increase in Inventory | 7000 |  |
| increase of Debtors | 3000 |  |
| Cash Drawings  | 2000 | 45400 |
| Closing Balance in Cash |  | 16000 |

1P&E includes installation & typewriter

A **Sole Trader** is one who has unlimited liability – creditors can go after his personal assets as well as his business ones. There is no requirement on him to make his P&L and balance sheet public. His is still taxed on yearly profit

A **Partnership** is similar to sole trader in that a number of individuals agree to setup business together , bringing various assets to the business. An agreement is usually drawn up amongst them specifying how they will share in profits. Creditors can go after their personal assets as well as their business ones. There is no requirement on them to make their P&L and balance sheet public.

A **Company** limits the liability of its owners (shareholders) to the amount of equity (share capital) they have in the company – so they cannot lose any more money then the sum they paid for their shares. They must make public their annual accounts and have them audited.

The **nominal value** of a share is the face value of the share.

Review Questions:

1. b
2. c
3. d
4. c
5. d
6. a
7. b
8. b
9. b
10. 10000 (Cash) + 5000 (Van) + 8000 (RM) =15000 (Eq) + 8000 (Creditors) : d
11. 10000 (Cash) + 5000 (Van) + 8000 (RM) =15000 (Eq) + 8000 (Creditors) : b
12. 10000 (Cash) + 5000 (Van) + 8000 (RM) =15000 (Eq) + 8000 (Creditors)

4000 (P) +10000 (Cash) + 5000 (Van) + 8000 (RM) =15000 (Eq) + 12000 (Creditors)

4000 (P) +9800 (Cash) + 5000 (Van) + 8200 (FGI) =15000 (Eq) + 12000 (Creditors)

4000 (P) +16800 (Cash) + 5000 (Van) + 4100 (FGI) =17900 (Eq) + 12000 (Creditors):b

1. c
2. a
3. 3600 (P) +11450 (Cash) + 5000 (Van) + 4100 (FGI) =17150 (Eq) + 7000 (Creditors):b
4. d
5. b
6. 3600 (P) +11450 (Cash) + 5000 (Van) + 0 (FGI) + 8500 (debtors) =21550 (Eq) + 7000 (Creditors)

3600 (P) +10950 (Cash) + 5000 (Van) + 0 (FGI) + 8500 (debtors) =21050 (Eq) + 7000 (Creditors)

3600 (P) +8950 (Cash) + 5000 (Van) + 0 (FGI) + 8500 (debtors) =21050 (Eq) + 5000 (Creditors):a

19:d

20:Current Assets = 8950 + 8500 = 17450:b

21. c

22. d

23. d

24. c

25. a

26. c

Rough:

Action 7:

Cash 4960 + Plant $11950 + Raw Materials $5500 + Debtors $750 = Owners Equity $20160 + Creditors $3000

Balance Sheet

Cash 4960 Owners Equity 20160

Plant 11950 Creditors 3000

Inventories 5500

Debtors 750

 23160 23160

## Proper Layout

# Fixed Assets

Plant & Equipment 12000

Less Depreciation 50 11950

# Current Assets

Inventories 5500

Cash on hand 4960

Debtors 5500 11210

Less Current Liabilities (8210)

 20160

# Represented by

Owners Equity 20160

19.1 DIY Example

1. 50000 Cash = 40000 Equity + 10000 Long term Loan

2. 16000 Cash + 5000 Plant + 25000 Factory+ 8000 raw materials = 40000 Equity + 10000 Long term Loan + 4000 Creditors

3. 15400 Cash + 5200 Plant1 + 25000 Factory + 4000 raw + 4400 finished = 40000 Equity + 10000 Long term Loan + 4000 Creditors

*1 The installation cost was necessary to get the equipment working, hence it is capitalized. Any further work (maintenance) would be expensed – i.e. written off against owners equity*

4. 11400 Cash + 5200 Plant + 25000 Factory + 4000 raw + 2200 finished + 4000 Debtors = 41800 Equity + 10000 Long term Loan

5. 11200 Cash + 5400 Plant + 3000 Van + 25000 Factory + 4000 raw + 2200 finished + 4000 Debtors = 41800 Equity + 10000 Long term Loan + 3000 Creditors

6. 19000 Cash + 5400 Plant + 3000 Van + 25000 Factory + 4000 raw + 100 Debtors = 43500 Equity + 10000 Long term Loan + 3000 Creditors

7. 12600 Cash + 5400 Plant + 3000 Van + 25000 Factory + 6000 raw +4300 finished + 100 Debtors = 43400 Equity + 10000 Long term Loan + 3000 Creditors

8. 12600 Cash + 5400 Plant + 3000 Van + 25000 Factory + 6000 raw +4300 finished + 100 Debtors = 43400 Equity + 10000 Long term Loan + 3000 Creditors

1. 12600 Cash + 5400 Plant + 3000 Van + 25000 Factory + 6000 raw + 3100 Debtors = 45100 Equity + 10000 Long term Loan
2. 11000 Cash + 5400 Plant + 3000 Van + 25000 Factory + 7000 finished + 3100 Debtors = 44500 Equity + 10000 Long term Loan
3. 11000 Cash + 4860 Plant + 2250 Van + 25000 Factory + 7000 finished + 3000 Debtors = 43110 Equity + 10000 Long term Loan
4. 16000 Cash + 4860 Plant + 2250 Van + 20000 Factory + 7000 finished + 3000 Debtors = 43110 Equity + 10000 Long term Loan

# Balance Sheet

# Fixed Assets

Plant 5400

Less Depreciation 540 4860

Van 3000

Less Dep 750 2250

Factory 20000 27110

# Current Assets

Cash 16000

Finished Inv 7000

Debtors 3000 26000

 53110

Represented by

Owners Equity 43110

Long term loan 10000 53110

Turned into finished goods

 RM Labor

 2000 200

1. 200

4000 300

 8000 700

total Sales = 4000+3900 + 6000=9900P&L

Sales 13900

Cost of Sales

Raw Material 8000

Depreciation 540

Labor 700 9240

Gross Profit 4660

Less General Expenses

Advertising 400

Bad Debt 100

Audit 200

Repair 100

Depr on Van 750 1550

 3110

Profit on sale of factory 2000

Net Profit before Tax 5110

# Cash Flow

Cash Inflow

Profit 5110

Add Depciation 1290 7200

Loan 10000

Capital Introduction 40,000

Sale of Factory 5000

 61,400

Cash Outflow

Purchase of Plant & Equip 5400

Purchase Van 3000

Purchase of factory 25,000 33,400

Increase in inventory 7,000

Increase in Debtors 3000

Personal Withdrawal 2000

 45400

Cash balance 16000

Case Study 1.1

1. 25000 Cash = 25000 Equity
2. 23000 Cash = 23000 Equity
3. 7000 Cash + 10000 Equip + 6000 Car = 23000 Equity
4. 3000 Cash + 10000 Equip + 6000 Car + 8000 Raw materials = 23000 Equity + 4000 Credit
5. 1000 Cash + 10000 Equip + 6000 Car + 2000 Raw materials + 8000 Finished goods = 23000 Equity + 4000 Credit
6. 8500 Cash + 10000 Equip + 6000 Car + 2000 Raw materials + 3200 Finished goods + 4500 Debtors = 30200 Equity + 4000 Credit
7. 7600 Cash + 10000 Equip + 6000 Car + 2000 Raw materials + 3200 Finished goods + 4500 Debtors = 29300 Equity + 4000 Credit

Equipment Dep over 6 months = 10000/10 = 1000

Car Dep over 6 months = 6000/6 = 1000

1. 7600 Cash + 9000 Equip + 5000 Car + 2000 Raw materials + 3200 Finished goods + 4500 Debtors = 27300 Equity + 4000 Credit

P&L

Sales 12000

Cost of goods sold

Materials 3600

Labor 1200

Depreciation (Equip) 1000 5800

Gross 6200

Salaries 600

Rent 2000

Dep (car) 1000

Expenses (Petrol) 300 3900

Net Profit 2300

Balance Sheet

Fixed Assets

Equipment 10000

Depreciation 1000 9000

Car 6000

Depreciation 1000 5000

 14000

Current Assets

Cash 7600

Finished Inv 5200

Debtors 4500 17300

 31300

Less Creditors 4000

 27300

Represented by:

Owners Equity 27300