

BUSINESS & MANAGEMENT (STANDARD LEVEL)

Module 6: Accounting and Finance

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6.1 Source and Application of Funds

Forms of finance

Internal finance

Internal Sources of finance

sources that come from the business's assets or activities.

1. **Retained profit**
 - if the business made profit, it could use some of that profit to finance future costs.
2. **Sales of Assets**
 - The business can sell of its assets such as property, machinery and such to finance future costs or debts.
 - This can be a short term source of finance if the assets sold are like vehicles and machinery, but can be a long term source of finance if the assets are valuable like buildings and lands.
3. **Reducing stocks**
 - By holding too many stocks, the business is actually holding money in the form of goods.
 - The business can sell these stocks and thus, gain money.
 - This is a short term source of finance.

External finance

External sources of finance

sources that come from outside the business.

Short term finance (under 1 year)

1. **Personal savings**
 - when the business is facing financial constraints, the owner of the business can use his or her own money to finance the costs or debts.
 - This is considered as external because the money is not raised by the business's activity.
 - This source of finance is only applicable for sole traders and partnership, where the owners are under unlimited liability.
 - This can be a short term or long term source of finance, depending on the amount of savings invested into the business.
2. **Overdrafts**
 - Bank overdrafts are given on current accounts and are usually short term sources of finance.
 - It is different from loans as the payments are only based on how much money the business used from the overdraft.
 - So, lets say the overdraft is \$30 000, but the business only used up to \$10 000, then the debt is only \$ 10 000 plus interest, which is also based on the amount used. Let's say the interest rate is 5%, then the interest is $5\% \times 10\,000$ instead of $5\% \times 30\,000$.
3. **Debt Factoring –**
 - Debt factoring is selling the business's invoices to a factoring company.
 - The business customer does not have to collect the debt anymore as the factoring company will pay for it and will then collect the debt from the debtors, however, the factoring company will pay less than the actual amount of debt noted in the invoice.
 - So, one advantage is that the business customer will obtain cash quickly and does not have to wait for the debtors to pay back their debts.
 - However, there will be a loss, as the factoring company will pay less, for example, only 80% of the debt. That is how these factoring companies make their profits.
 - Another disadvantage is, it may so happens that the debtors prefer to deal with the business they are trading rather than a factoring company. Dissatisfaction might happen.
 - Debt factoring is usually a short term source of finance
4. **Loans**
 - Businesses can apply for loans from commercial banks, and need to pay interests for it.
 - There are three types of loans: long term loans, medium term loans and short term loans, depending on the length of time the business is given to pay off the debts.
 - Long term loans are due to be paid between 5 to 7 years and medium term loans

Medium (1-5 years) / Long term (over 5 years) finance

1. Debentures

- This is a form of loan obtained by specialist financial institutions.
- It is usually a long term loan.

2. Leasing

- Leasing involves a business customer renting equipments that it may use for several years, but the equipments are not owned.
- The equipments are rented from a leasing company, and after the contract is finished, the equipments are to be returned to the leasing company.
- Since the equipments are not owned, the leasing company is responsible in financing the maintenance such as repairs for the equipments.
- Leasing can be either medium or long term source of finance.

3. Hire purchase

- Hire purchase is a little bit like leasing as the business does not own the equipments at first and has to pay monthly rents or installation, but different as when all the payments have been made, then the business becomes the owner of the equipment.
- Under the agreement, the business customer usually is responsible for the maintenance of the equipment.
- Hire purchasing can be either medium or long term source of finance.

4. Issue shares

- if an unlimited company converts to a limited company, then sources of finance can now come from the shareholders.
- For limited companies, issuing new shares can increase the capital as there are more shareholders.
- This is a long term source of finance.

5. Venture capital

- Venture capitalists are specialist finance providers and the loan a business money in return for a share of business ownership or of any eventual profit.

Debt and Equity

Debt

Duty or obligation to pay money, deliver goods, or render service under an express or implied agreement. One who owes, is a debtor; one to whom it is owed, is a creditor, or lender.

Equity

Ownership interest in a corporation in the form of common stock or preferred stock.

Both debts and equities are usually required in financing a company, and the best ratio needs to be obtained depending on different situations the company is experiencing. For new and small companies, they would mostly need equity to finance their growth, while companies that are already profitable, generate cash and have healthy asset base can be financed mostly by debts.

Debt to equity ratio is one of the examples of gearing ratio.

= **total debt / total equity**

6.2 Investment appraisal

Investment appraisal

The process of evaluating an investment opportunity.

Methods

Payback period

Payback period

The time it will take for the original investment to pay for itself through savings.

Calculating the payback period can be done using the following formula:

$$\text{Payback period} = \frac{\text{costs of investment}}{\text{annual cash inflows}}$$

For example, take a project costing \$200 000 and the annual expected returns is \$40 000. The payback period thus would be 5 years.

$$x = \frac{\text{Income required}}{\text{Contribution per month}}$$

If the period is say 2 years and x months, The formula to calculate x:

Advantages of payback period method:

- easy to calculate
- easy to understand
- focuses on the short term cash flow

Disadvantages of payback method:

- does not measure the total incomes as it ignores any benefits that occur after the payback period
- ignores the time value of money

Non-financial factors

Apart from the financial factors, a business must also take into account the non-financial qualitative factors:

1. **Corporate objectives**
Which investment most closely suits corporate objectives? Are profit long-term or short-term? A firm with long-term profit horizons may consider investments with long payback-periods, while a firm facing cash-flow crisis may prefer shorter payback period
2. **Corporate image**
How an investment affect its overall image and brand (e.g. Coke investing in undies??)
3. **Human factors**
The management may not favour the investment. The opinions of staff, the need for staff training and the effect on workplace culture may all be considered.
4. **Risk**
Is the business willing to take risks? Is the benefit worth the risks?
5. **Operations**
Current production capacity? Will quality standard be maintained? Links and relationship with suppliers?
6. **State of economy**
the current and forecast state of economy will have a significant effect in investment decisions. Businesses are unlikely to invest heavily during economic recession.

6.3 Cash Flow Forecasts

Cashflow Forecasts

Advantages and disadvantages

Advantages:

- Identify cash shortages
- For banks to grant loan (documents for bank’s consideration)
- Plan expenditure based on future surplus or shortage
- Provide virtual implications of financial decisions i.e how much trade credit to give

Disadvantages:

- Only estimates
- Impossible to forecast every item
- Reveal a problem, but no indication of underlying cause
- Must be monitored closely and updated according to changing circumstances

Worked example

Data for **Double Fresh Business**

Item	Amount	Notes
Capital introduced	\$500	-
Electricity	\$150	due in February, May, August, November
Part-time labour	\$500	in June due to lack of manpower
Withdrawal	\$700	every month
Fuel	\$200	every month

Rent	\$2000	paid by instalments at every beginning of the quarter
Income	\$1200	from January till May
	\$2200	in June, due to festivities

Task: Prepare a cash flow forecast for Double Fresh Business from January till June.

Cashflow forecasts for Double Fresh Business from January to June

	January (\$)	February (\$)	March (\$)	April (\$)	May (\$)	June (\$)
Income	1200	1200	1200	1200	1200	2200
Electricity	0	150	0	0	150	0
Part-time Labour	0	0	0	0	0	500
Withdrawal	700	700	700	700	700	700
Fuel	200	200	200	200	200	200
Rent	500	0	0	500	0	0
Opening Balance	500	300	450	750	550	700
Closing Balance	(200)	150	300	(200)	150	800
Net Balance	300	450	750	550	700	1500

Notes:

- Brackets denote negative values, i.e (200) means -200.

Analysis:

1. The business has fluctuating net flow.
2. Net balance remains positive, meaning the business will not anticipate cashflow problems.

6.5 Breakeven Analysis

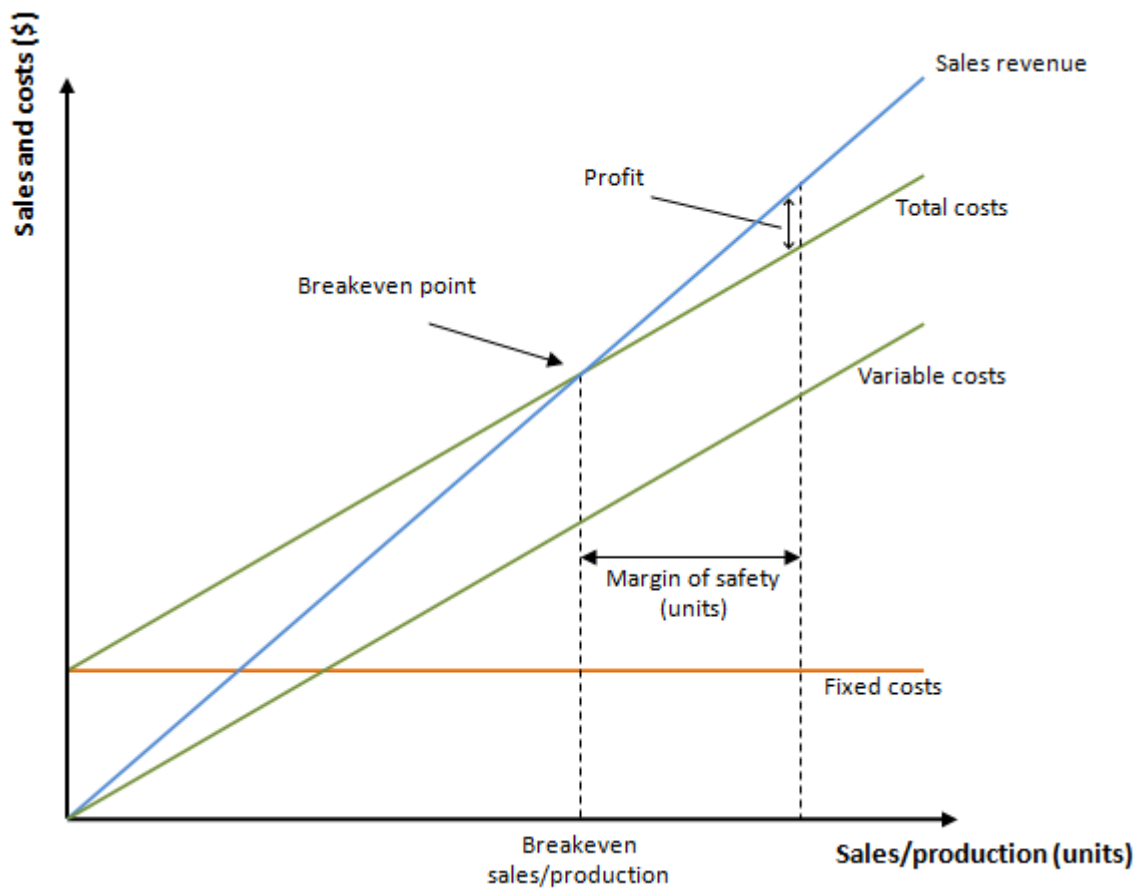
Types of cost

1. **Fixed cost** – costs of production that do not vary directly with the level of output in the short term
2. **Variable cost** – costs of production that vary directly with changes in output
3. **Semi-variable cost** – costs of production that combines both the aspects of variable and fixed costs
4. **Direct cost** – the cost of resources that are directly used up in the production of a good or service
5. **Indirect cost** – the overheads involved in running a business (cost such as management salaries and administration expenses that are not directly related to production)

Breakeven analysis

- **Total revenue**
The values of goods or services sold to customers over a period (Selling price per unit x number of unit sold)
- **Total costs**
The total costs needed for any level of production (Fixed cost + variable cost)
- **Breakeven**
The point at which a business is making neither a profit nor a loss, where total revenue is equal to total costs
- **Contribution**
The surplus on each unit sold, which is selling price less variable cost per unit
- **Margin of safety**
The number of unit that a business is currently producing above the breakeven level

Breakeven chart



Breakeven Chart

Advantages and disadvantages

Advantages

- provides a focus for the business
- provide a clear, visual demonstration of some vital financial information
- not complex, expensive or time consuming process
- shows the financial impacts of changes in costs and selling price
- predict whether further investment in the product is worthwhile

Limitations

- Do not take into account possible changes in costs over the time period.
- Analysis only as good as the quality of information.
- Do not allow for changes in market conditions in the time period – e.g. entry of new competitor.
- total costs are not constant all the time (trade credit)

6.6 Final Accounts

Profit and Loss (P&L) Account

Purpose of P&L account

- Record sales revenue and costs incurred in a period of time, and profit/loss made
- To fulfil legal requirements, if firm is a limited company

Advantages (also other purposes of P&L)

- Shareholders and investors' guide of business profitability
- Managers' guide of cost efficiency
- Creditor's guide for financial position and ability to pay debt

Disadvantages

- Limited value
- Tendency to 'window dress' i.e. disguise problems
- Does not give the whole picture of performance i.e. other non-financial performance

Balance Sheet

Usefulness:

- Shareholders' guide into company's performance and financial strength
- Potential investors' guide into company's strength for future expansion
- Employee's guide into job security and pay prospects
- Creditors' guide into whether the business can meet its short-term repayments.

Limitations

- Balance sheet is a snapshot, can be out of date
- Many values are estimates. Company may be under or over-valued.
- Prone to "window dressing"
- Only provides part of the picture

Worked Example

Reminder: For both P&L account and balance sheet, **title is a must.**

Data for Winson's Berry Yard Ltd:

Item	Amount (\$ '000)	Item	Amount (\$ '000)
Land	1100	Berry Shop	900
Closing Stocks	900	Debtors	150
Cash in bank	300	Trade creditors	450
Tax payable	150	Mortgage (after 1 year)	1825
Turnover	1600	Purchases	1200
Opening Stock	100	Rent	50
Wages	10	Electricity	20
Transportation	200	Fuel	50
Payment for yard extension	470	Non-operating income	150
Interest	50	Dividends	50
Capital	625		

Task 1: Construct a P&L Account for Winson's Berry Yard Ltd from the given data.

Profit and Loss Account for Winson's Berry Yard Ltd for the year ending December 2007

Item	Amount (\$ '000)
Turnover	1600
Opening stocks	100
+ Purchases	1200
- Closing stocks	900
Cost of sales	400
Gross Profit	1200
<i>Expenses</i>	
Rent	50
Wages	10
Electricity	20
Transportation	200
Fuel	50
Payment for yard extension	470
<i>Total expenses</i>	800
Net Profit	400
Non-operating income	150
Net Profit before tax and interests	550
Tax	150
Interest	50
Net profit after tax and interest	350
Dividends	50
Retained profit	300

Task2: Construct a Balance Sheet using the given data.

Balance Sheet for Winson's Berry Yard Ltd for year ending December 2007

Item	Amount (\$ '000)
Fixed assets	
Land	1100
Berry shop	900
<i>Total fixed assets</i>	2000
Current assets	
Stocks	900
Debtors	150
Cash in bank	300
<i>Total current assets</i>	1350
Current liabilities	
Trade Creditors	450
Tax payable	150
<i>Total current liabilities</i>	600
Net current assets (working capital)	750
Total Assets less Current Liabilities	2750
Long-term liabilities	
Mortgage	1825
<i>Total long-term liabilities</i>	1825
Net Assets	925
Capital and Reserves	
Ordinary share capital	625
Retained profit	300
Total capital employed	925

6.8 Ratio Analysis

Profitability Ratios

- A measure of how much profit its activities generate

Gross Profit Margin

- Formula: $\frac{\text{Gross profit}}{\text{Total sales revenue}} \times 100$
- Tells us about the business's ability consistently to control its production costs or to manage the margins its makes on products its buys and sells

Net Profit Margin

- Formula: $\frac{\text{Net profit}}{\text{Total sales revenue}} \times 100$
- Tells us something about a company's ability to control its other operating costs or overheads

Return On Capital Employed (ROCE)

- Formula: $\frac{\text{Net profit before interest and tax}}{\text{Total capital employed}} \times 100$
- Tells us what returns management has made on the resources made available to them before making any distribution of those returns
- A ROCE of 15% suggests that the firm uses every £1 of capital to generate profits of 15p

Efficiency Ratios

Efficiency ratios are used to gauge how efficiently the business is employing those resources invested in fixed assets and working capital.

Stock Turnover

- Formula: $\frac{\text{Sales}}{\text{Average stock}}$ or $\frac{\text{Cost of goods sold}}{\text{Average stock (at selling price)}}$
- Indication of poor stock management if the figure is too high
- Too high – disadvantages: storage cost increases, potential damage, liquidity problem and lost profit

Debt Collection Period

- Formula: $\frac{\text{Trade debtors}}{\text{Sales revenue}} \times 365$
- A high figure may suggest general problems with debt collection or the financial position of major customers.

Creditor Payment Period

- Formula: $\frac{\text{Trade creditors}}{\text{Total purchases}} \times 365$
- Indicates whether a business is taking full advantage of trade credit available to it

Liquidity Ratios

- Ability of a business to meet its debts

Current Assets Ratio

- Formula: $\frac{\text{current assets}}{\text{current liabilities}} \times 100$
- Estimation whether the business can pay debts due within one year from assets that it expects to turn into cash within that year
- A ratio of 1 will be safe

Acid Test (Quick)

$$\frac{\text{current assets} - \text{stock/inventory}}{\text{current liabilities}}$$

- Formula:
- Test the liquidity of a business
- A ratio of less than one will be dangerous

Gearing Ratios

- Indicates how risky investment in this business will be

Gearing Ratio

$$\frac{\text{loan capital} + \text{preference capital}}{\text{total capital (loan + preference + equity)}} \times 100$$

- Formula:
- Measures the proportion of assets invested in a business that are financed by borrowing.
- The higher the level of gearing, the higher are the risks to a business
- However, it can prevent dilution of ownership of the business and improve profitability through expansion

Earnings per share

$$\frac{\text{net profit after tax} + \text{preferred dividend}}{\text{number of shares}}$$

- Formula:
- Measures the overall profit generated for each share in existence over a particular period

Dividend Yield

$$\frac{\text{dividends per share}}{\text{market price}} \times 100$$

- Formula:
- Provides a guide as to the ability of a business to maintain a dividend payment
- Measures the proportion of earnings that are being retained by the business rather than distributed as dividends.

Limitations of ratio analysis

- The accuracy and relevance of the ratios will depend on how reliable and up to date are the figure being used (may be window dressed)
- Requires comparisons with past year ratios to indicate its true performance and financial position
- Do not state other factors such as state in the economy, trends in consumer spending and the level of competition