

## **FINANCIAL MANAGEMENT SKILLS**

Financial management is the management of finances of a business / organization in order to achieve objectives

Book keeping

This is careful recording of business transactions in monetary terms ie recording must be made in monetary terms but not quantity

It involves the recording, posting and processing of business records, accounting goes beyond and involves the analysis and interpretation of transactions recorded ie book keeping is part of accounting

### **Importance of book keeping**

- ✓ Book keeping helps the business in calculating the profits or losses made during a given period
- ✓ Book keeping helps to provide information on credit transactions. The business is able to keep track and follow up all its debtors and also keep proper records of all creditors for accurate payment
- ✓ It acts as a control tool i.e allows a business to keep accurate data concerning all its resources and also proper information on its expenses and income for proper decision making
- ✓ The book keeping information guides on tax assessment. The tax authorities are able to calculate the exact amount of tax to be paid by an entrepreneur. This helps to minimize over or under taxation
- ✓ The records kept help in planning process. A business enterprise can formulate its plans basing on the present and past accounting records
- ✓ The records are used by the owners to decide whether to apply for bank loan or not. Banks usually look at the records of a business to determine whether to provide a loan to the business or not
- ✓ The records help in determining the financial position of a business from the records a business is able to prepare the profit and loss accounts and balance sheet which shows the results of operation and financial position
- ✓ It helps the public or new investor who may want to invest in the business to get information on the business and therefore take an appropriate decision whether to buy shares in the business or not
- ✓ Book keeping helps a business to keep track of its transactions and know what transpired in the business operations

### **SOURCES OF FINANCES**

The term finance is defined as the art and science of managing money.

Business finance is defined as the activity concerned with planning, raising, controlling and administering of the funds used in the business.

Sources include;

**1. OWN SOURCE.** This includes personal income savings that one can use to start a business.

#### **Advantages**

- ✓ It allows an entrepreneur to make independent personal decisions on where to invest the fund and what to do with the profits realized.
- ✓ It has no extra cost e.g. no interest is paid for the use of funds.
- ✓ The entrepreneur has complete control over the benefits arising from the investment.
- ✓ It is associated with self-discipline e.g. saving more and earn more
- ✓ The source has no strings attached.

#### **Disadvantages**

- ✓ It takes long period of time to realize substantial amount of money.
- ✓ It can promote extravagance since the entrepreneur has on external control.
- ✓ It's difficult to distinguish personal income and business capital, this retard the growth of business.

**2. SUPPLY CREDIT.** This is where the supplier offers goods on credit and collects cash later after selling.

#### **Advantages**

- ✓ It ensures that the business is constantly supplied with raw materials
- ✓ It promotes good relation between the company and the business receiving credit.
- ✓ The supplying company gets a lot of profits since goods sold on credit are always highly priced.
- ✓ It helps those entrepreneurs without capital to start business.
- ✓ It promotes self-discipline since credit payment need hard work and honesty.
- ✓ It increases market for supplying the company.

#### **Disadvantages**

- ✓ It's associated with high cost of recovering credit.
- ✓ It may lead to bad relationship since incase the credit is not cleared.
- ✓ In case of demand fall, the suppliers register great losses.
- ✓ It limits consumer choice
- ✓ It increases the cost of doing business
- ✓ It leads to buying goods of low quality goods or services. This makes buyer to make losses.

**3. FAMILY SOURCE OF FINANCE.** This include the use of family property, family savings used to start a business

#### **Advantages**

- ✓ It has fewer strings attached
- ✓ More amount of money is raised at once
- ✓ It promotes accountability in the business.
- ✓ The external supervision leads to efficiency in business operations.
- ✓ Low cost of operation, since family members offer their expertise at almost no cost.

- ✓ It mentors individual into the culture of saving and business operations.

#### **Demerits**

- ✓ Family conflicts are extended to the business, this affect its growth
- ✓ Sometimes personal interest may affect the business profit making
- ✓ It may lead to bad relationship between the fund administer and the family members
- ✓ Decision making and implementation is delayed and difficult as a number of family members are to be consulted.
- ✓ It breads Conflict of leadership of the family property.

**4. SELLING PART OF THE BUSINESS OR PERSONAL PROPERTY.** This is where an entrepreneur converts some of the personal or business properties into cash to either get starting capital or expand the existing business.

#### **Advantages**

- ✓ It has no strings attached.
- ✓ Large amount of money is raised within a short period of time.
- ✓ It leads to quick investment decision making.
- ✓ It promotes hard work, in order to make profits and replace the sold property.

**5. RETAINED EARNINGS.** Some parts of profits which belong to ordinary shareholders may not be paid out as dividends in the period they are earned. These profits are reinvested into the business or used to start a new business or expend or improve on the existing one.

**6. Commercial banks.** These provide finances in form of loans. Loan is the money borrowed from a financial institution like banks, cooperative credit societies, etc

#### **Classification of loans**

They can be short term or long term

The short term loan is the money borrowed with repayment period of less than one year. They include:

- a) **Bank overdraft**, this is where a customer with a current account is allowed to withdraw money over and above what is on his or her account.
- b) **Soft loans**, this is the money that is advanced by commercial banks with fewer conditions and for a short period of time.
- c) **Cash credit**, this is an arrangement by which a bank allows its customers to borrow money up to certain limit against the security pledged.

#### **LONG TERM SOURCES**

- a) **Share capital**, this consists of ordinary share CapitalLand preference share capital
- b) **Debenture or long term loans**, is defined as a written as a written acknowledgement of the debt incurred by a limited company. This takes about 20 and above years.
- c) **Mortgages**, this raised by mortgaging assets
- d) **Institutional investors**, these provide capital through the process of selling shares

#### **Advantages of using a loan as a source of business capital**

- ✓ It provide extra capital to an entrepreneur, this is used to supplement on the available capital.
- ✓ More money is raised in short period of time, this facilitate easy investment decision making.
- ✓ It encourages hard work on the part of the borrower so as to repay the borrowed fund.
- ✓ It facilitate easy planning, this is because large amount of money is raised in a single sum.
- ✓ It's accompanied by external monitoring from the lender; this improves the performance of the business.
- ✓ It helps the entrepreneur to supplement on his or her savings.
- ✓ Sometimes certain loans bear low interest rate, this leads to the growth of the business capital.
- ✓ For the case of insured loans any change in business performance caused by natural factor, the entrepreneur assets is not affected.
- ✓ A short term loan helps an entrepreneur to offset short-term deficit e.g paying workers, accessing raw materials etc.

### **Disadvantages**

- ✓ One can `t access it within the short period of time, acquiring it is a process. This delays investment decisions.
- ✓ It is accompanied by external control; this affects the operation of the business.
- ✓ Interest amount sometimes is high, this increases the business expenditures e.g. paying workers' salaries on time is affected.
- ✓ In case of business failure, the lending institution may take over ownership of the business.
- ✓ Sometimes lending institutions take possession of the security pledged this affect the growth of business.
- ✓ It affect the capital growth of the business, this is because the entrepreneur pay back more than the amount borrowed.

### **Procedure for borrowing**

- ✓ Developing a financial plan
- ✓ Carrying out market survey on the lending institutions
- ✓ Making an inquiry on the identified financial institutions
- ✓ Obtaining lending terms and conditions of the different financial institutions.
- ✓ Comparing the terms and conditions
- ✓ Selecting the financial institution to deal with
- ✓ Applying for a loan
- ✓ Filling the application loan form
- ✓ Assessing the applicant to establish whether the business is capable of paying back the loan.
- ✓ Agree on the terms and conditions for investment and repayment of the loan.
- ✓ Presenting the collateral security
- ✓ Obtaining the loan
- ✓ Start paying the loan

### **Circumstances under which an entrepreneur may go in for a loan**

- ✓ When he want to make an urgent profitable opportunity that require immediate funding.
- ✓ When there is a financial gap to be filled

- ✓ When the entrepreneur wants to expand the business
- ✓ In case the entrepreneur wants to meet the market demand.
- ✓ In case the entrepreneur wants to supplement on the existing capital.
- ✓ When there is need to increase on the working capital so as to serve the customer better.
- ✓ When an entrepreneur is faced with short term financial crisis e.g. fall in demand resulting into a drop in the profit level.

## **LOAN MANAGEMENT**

This refers to the various ways of how an entrepreneur is to effectively utilize the procured fund profitably in order to make a profit and repay the funds at the sometime maintaining a good relationship with the lender.

The following ways are used

## **LOAN REPAYMENT SCHEDULES**

Is a document showing the time intervals and with a particular amount of money borrowed is to be paid back as agreed between the lender and the lendee or between customers and the business

There are basically two formats of writing a loan repayment schedule ie

- ✓ A fixed balance method
- ✓ A reducing balance method

1. You have acquired a loan from Stanbic Bank Ltd worth 8,000,000 Ugandan shillings; the principle repayment period is 4 years, calling for an annual interest rate of 12%. You have been allowed to pay in 8 equal installments and all the due have to be cleared in four years

Prepare a loan repayment schedule so as to ensure effective / proper loan management

Solution

Principle amount – shs 8,000,000

Repayment period – 4 years

Interest rate – 12%

So interest per annum =  $\frac{12}{100} \times 8,000,000 = \text{shs } 960,000$

Annual principle amount payable =  $\frac{8,000,000}{4} = \text{shs } 2,000,000$

So we were granted to pay in 8 equal installments in 4 years, we can pay twice in a year ie principle amount per installment =  $\frac{2,000,000}{2} = \text{shs } 1,000,000$

Interest amount payable per installment =  $\frac{960,000}{2} = \text{shs } 480,000$

Therefore amount payable per installment

**MAJJOKI – CARPENTARY WORKSHOP**

**LOAN REPAYMENT SCHEDULE OF 8 MILLION FROM STANBIC BANK**

Period	Installment Payable	Principle Payable shs	Interest Payable shs	Total Payment Shs	Outstanding Balance shs
YEAR 1	1 <sup>st</sup>	1,000,000	480,000	1,480,000	7,000,000
	2 <sup>nd</sup>	1,000,000	480,000	1,480,000	6,000,000
YEAR 2	3 <sup>rd</sup>	1,000,000	480,000	1,480,000	5,000,000
	4 <sup>th</sup>	1,000,000	480,000	1,480,000	4,000,000
YEAR 3	5 <sup>th</sup>	1,000,000	480,000	1,480,000	3,000,000
	6 <sup>th</sup>	1,000,000	480,000	1,480,000	2,000,000
YEAR 4	7 <sup>th</sup>	1,000,000	480,000	1,480,000	1,000,000
	8 <sup>th</sup>	1,000,000	480,000	1,480,000	0
<b>TOTAL</b>		<b>8,000,000</b>	<b>3,840,000</b>	<b>11,840,000</b>	<b>28,000,000</b>

2. You have set aside Uganda shs 15 million to start a micro finance business in your town. Using the fixed installment method design a loan repayment schedule for a customer who borrowed shs 1,000,000 at an interest rate of 2% per month payable in 5 equal monthly installment

<b>Loan repayment schedule</b>					
<ul style="list-style-type: none"> <li>➤ Title</li> <li>➤ Frame</li> <li>➤ Loan size: 1,000,000</li> <li>➤ Name of the business, address and contact</li> <li>➤ Interest rate: 2% on fixed installment method</li> <li>➤ Item name: loan repayment schedule</li> </ul>					
Months	Installment	Principle (Shs)	Interest Payable (Shs)	Total Payment (shs)	Outstanding Balance (shs)
1	1	200,000	20,000	220,000	800,000
2	2	200,000	20,000	220,000	600,000
3	3	200,000	20,000	220,000	400,000
4	4	200,000	20,000	220,000	200,000
5	5	200,000	20,000	220,000	0
<b>Total</b>		<b>1,000,000</b>	<b>100,000</b>	<b>1,100,000</b>	<b>2,000,000</b>
<b>Borrower's details</b>			<b>lenders details</b>		
Signature.....			signature.....		
Name .....			Name .....		
Title .....			Title .....		

**3. You have acquired a loan worth shs 60,000,000 for establishing a new branch of your metal works project. The loan is payable in six equal monthly installment at a monthly interest rate of 2% on reducing balance method**

a) Prepare a loan repayment schedule  
 MUTEMBI METAL WORKS  
 PO BOX 222, KAMPALA UGANDA  
 TEL. +2546666666666

**For quality metal works  
 LOAN REPAYMENT SCHEDULE**

Loan size: 60,000,000  
 Interest payable: 2% on reducing balance  
 Payable in six equal installments

Period	Installment Payable	Principle Payable Shs	Interest Payable shs	Total Payment Shs	Outstanding Balance shs
1st	1 <sup>st</sup>	10,000,000	1,200,000	11,200,000	50,000,000
2 <sup>nd</sup>	2 <sup>nd</sup>	10,000,000	1,000,000	11,000,000	40,000,000
3 <sup>rd</sup>	3 <sup>rd</sup>	10,000,000	800,000	10,800,000	30,000,000
4 <sup>th</sup>	4 <sup>th</sup>	10,000,000	600,000	10,600,000	20,000,000
5 <sup>th</sup>	5 <sup>th</sup>	10,000,000	400,000	10,400,000	10,000,000
6 <sup>th</sup>	6 <sup>th</sup>	10,000,000	200,000	10,200,000	0
Total	6	60,000,000	4,200,000	64,200,000	25,000,000

**4. You have obtained a bank loan of 60 million shillings for expanding your commuter tax business. The loan is payable in 8 equal monthly installments at an interest rate of 4% per month on reducing balance method**

MUTEBI COMMUTER TAX BUSINESS  
 PO BOX 222, KAMPALA UGANDA  
 TEL. +2546666666666

**LOAN REPAYMENT SCHEDULE**

Loan size: 60,000,000  
 Interest payable: 4% on reducing balance  
 Payable in 8 equal monthly installments

Period (months)	Installment Payable	Principle Payable shs	Interest Payable shs	Total Payment Shs	Outstanding Balance shs
1st	1 <sup>st</sup>	7,500,000	2,400,000	9,900,000	52,500,000
2 <sup>nd</sup>	2 <sup>nd</sup>	7,500,000	2,100,000	9,600,000	45,000,000
3 <sup>rd</sup>	3 <sup>rd</sup>	7,500,000	1,800,000	9,300,000	37,500,000
4 <sup>th</sup>	4 <sup>th</sup>	7,500,000	1,500,000	9,000,000	30,000,000
5 <sup>th</sup>	5 <sup>th</sup>	7,500,000	1,200,000	8,700,000	22,500,000
6 <sup>th</sup>	6 <sup>th</sup>	7,500,000	800,000	8,400,000	15,000,000
7 <sup>th</sup>	7 <sup>th</sup>	7,500,000	500,000	8,100,000	7,500,000
8 <sup>th</sup>	8 <sup>th</sup>	7,500,000	300,000	7,800,000	0
Total		60,000,000	10,700,000	70,800,000	

5. Mega enterprise borrowed shs 4,000,000 from Barclays Bank at an interest rate of 5% per month and it's paid in equal installment. Prepare a loan repayment schedule using a fixed method and reducing balance method.

**Solution**

**DEMAKOKO MICRO FINANCE LTD**

P. o. box 123 Mbale

Loan repayment schedule

Name of the client: mega enterprises account no: 12224353

Loan size shs: 4,000,000 .interest rate per month 5%

Loan period 5 years

Method of calculating interest: fixed installment method.

Period year	Principal installment Shs	Interest amount Shs	Total repayment shs	Principal balance shs
1	800,000	2,400,000	3,200,000	3,200,000
2	800,000	2,400,000	3,200,000	2,400,000
3	800,000	2,400,000	3,200,000	1,600,000
4	800,000	2,400,000	3,200,000	800,000
5	800,000	2,400,000	3,200,000	Nil
<b>Total</b>	<b>4,000,000</b>	<b>12,000,000</b>	<b>16,000,000</b>	

Drafted by.....

Approved by.....

Interest is calculated as  $5 \times 12 = 60\%$  per year ( $60/100 \times 4,000,000$ ) = shs 2,400,000

Principal installment =  $4,000,000 / 5 =$  shs 800,000 per year

Total repayment = interest amount + principal installment  $800,000 + 2,400,000 =$  shs 3,200,000

**Reducing balance method**

Demakoko micro finance ltd

P o box 123 mbale

Loan repayment schedule

Name of the client: mega enterprises account no: 12224353

Loan size: shs 4,000,000. Interest rate per month 5% Loan period: 5 years

Branch: mbale

Method of calculating interest: reducing balancing method.

Period year	Principal installment Shs	Interest amount Shs	Total repayment Shs	Principal balance shs
1	800,000	2,400,000	3,200,000	3,200,000
2	800,000	1,920,000	2,720,000	2,400,000
3	800,000	1,340,000	2,140,000	1,600,000
4	800,000	960,000	1,760,000	800,000
5	800,000	480,000	1,280,000	Nil
<b>Total</b>	<b>4,000,000</b>	<b>7,100,000</b>	<b>1,1,100,000</b>	





**Note:**

The interest is calculated basing on the outstanding principal loan balance for example in year one,  $60/100 \times 4,000,000 = \text{shs } 2,400,000$ , paid loan principal installment 800,000 and the balance being shs 3,200,000.

Year. 3,  $200,000 \times 60/100 = \text{shs } 1,920,000$ . Etc

**GUIDELINES FOR PROPER LOAN MANAGEMENT**

- ✓ Loan shall be properly documented especially from the commencement date
- ✓ Loan shall be used for intended purposes
- ✓ Friendly and health relationship with banks or lenders shall be maintained
- ✓ Proper management of the business to ensure its success for easy repayment of the loan shall be ensured
- ✓ Manageable loan size shall be got/ obtained
- ✓ Loan repayments shall be made on due dates
- ✓ Accurate information when applying for and using a loan shall be observed
- ✓ Advice from lenders about proper loan management shall be sought
- ✓ Workshops and training in financial management shall be attended to

**CASH FLOW STATEMENT**

This plan shows an entrepreneur the amount of cash that will flow in and out of the business ie cash receipts and payments. The cash flow plan is prepared periodically either on annual or monthly basis

**Importance of cash flow statement**

- ✓ It provides a basis to assess the ability of the enterprise to generate cash and cash equivalents and the needs of the enterprise to utilize those cash flows.
- ✓ A cash flow statement provides information that enables users to evaluate the changes in net assets of an enterprise, its financial structure (including its liquidity and solvency)
- ✓ Cash flow information is useful in assessing the ability of the enterprise to generate cash and cash equivalents, which enables users to develop models to assess and compare the present value of the future cash flows of different enterprises.
- ✓ It is useful in checking the accuracy of past assessments of future cash flows and in examining the relationship between profitability and net cash flow and the impact of changing prices.
- ✓ **Cash flow statement help in making financial decisions. E.g.** buying capital equipment using cash or pay workers.
- ✓ It helps the financial managers to make a cash flow projection for immediate future, e.g. basing on the past financial projections.
- ✓ Cash Flow Statement is an important financial tool for the management to make an estimate relating to cash for the near future.
- ✓ It helps the internal management to determine the financial policy to be adopted in future, since it supplies information relating to funds, e.g., taking decision about the replacement of fixed assets or repayment of long- term liabilities etc

- ✓ It reveals the cash position for the business, as it shows the movement of cash in the business i.e., whether there is any increase in cash or decrease in cash and the reasons explaining so.
- ✓ Cash flow statement helps to identify the main financial sources for the business that is from where cash inflows have arisen within a particular period and also shows the various activities where in the cash was utilized as Cash Flow Statement does not always represent the real liquid position.
- ✓ Cash flow statement is significant to management for proper cash planning and maintaining a proper matching between cash inflows and outflows. As Cash flow statement reports the amount of cash received during the period through various financing activities, such as issue of shares, debentures and raising long-term loan.
- ✓ Cash flow statement helps in appraising of the various capital investment programs to determine their profitability and viability.

### **Limitations of Cash Flow Statement:**

Cash Flow Statement is, no doubt, is an important tool in financial management which explains the movement of funds in various ways of a firm. It assists the management to understand the amount of capital blocked up in a specific segment of a firm. Although the Cash Flow Statement performs as an important financial tool, it is even not free from limitations.

#### **Some of them are given below:**

1. Cash Flow Statement fails to present the net income of a firm since it does not consider non-cash item.
2. It is neither a substitute of Funds Flow Statement nor an Income Statement. So, the functions which are performed by the Funds Flow Statement or Income Statement cannot be done by the Cash Flow Statement.

### **Terms**

1. **Cash**, it comprises cash on hand and demand deposits with banks.
2. **Cash equivalents**, these are short term, highly liquid investments that are readily convertible into known amounts of cash.
3. **Cash flows**, these are inflows and outflows of cash and cash equivalents.
4. **Operating activities**, these are the principal revenue-producing activities of the enterprise and other activities that are not investing or financing activities.
5. **Investing activities**, these are the acquisition and disposal of long-term assets and other investments not included in cash equivalents.
6. **Financing activities**, these are activities that result in changes in the size and composition of the owners' capital (including preference share capital in the case of a company) and borrowings of the enterprise.
7. **Cash inflow**, these are Receipt of cash from a non-cash item.
8. **Cash out flows**; this is cash payment in respect to in terms such as, purchase of machinery by paying cash.

### **CLASSIFICATION OF ACTIVITIES FOR THE PREPARATION OF CASH FLOW**

There are activities of an enterprise result into cash flows (inflows or receipts and outflows or payments). These activities are to be classified into three categories:

- ✓ Operating,
- ✓ Investing,
- ✓ Financing activities

## **OPERATING ACTIVITIES**

Cash flows from operating activities are primarily derived from the main activities of the enterprise. They generally result from the transactions and other events that enter into the determination of net profit or loss.

### **Cash Inflows resulting from operating activities include,**

- Cash receipts from sale of goods and the rendering of services,
- Cash receipts from royalties,
- Fees,
- Commissions
- Loan acquisition
- Sale of long term asset,
- And any other income that businesses receive

### **Cash Outflows resulting from operating activities include;**

- Cash payments to suppliers for goods and services,
- Cash payments to and on behalf of the employees,
- Cash payments to an insurance enterprise for premiums,
- Claims,
- Payment for policy benefits,
- Cash payments of income taxes,
- Interest payments on acquired loans,
- Payments for utilities
- Purchase of fixed assets

## **INVESTING ACTIVITIES**

Transactions related to long-term investment are (investing activities).

Separate disclosure of cash flows from investing activities is important because they represent the extent to which expenditures have been made for resources intended to generate future income and cash flows. Hence

### **Cash Inflows resulting from Investing Activities include;**

- Cash receipt from disposal of fixed assets,
- Cash receipt from the repayment of advances or loans made to third parties (except in case of financial enterprise).
- Cash receipt from disposal of shares, warrants or debt instruments of other enterprises except those held for trading purposes.
- Interest received in cash from loans and advances.
- Dividend received from investments in other enterprises.

### **Cash Outflows from investing activities;**

- Cash payments to acquire fixed assets,
- Cash payments to acquire shares, warrants or debt instruments of other enterprises other than the instruments those held for trading purposes.
- Cash advances and loans made to third party (other than advances and loans made by a financial enterprise wherein it is operating activities).

## FINANCING ACTIVITIES

Financing activities relate to long-term funds or capital of an enterprise, e.g., cash proceeds from issue of equity shares, debentures, raising long-term bank loans, repayment of bank loan, etc. here;

### Cash Inflows from financing activities include;

- Cash proceeds from issuing shares (equity or/and preference).
- Cash proceeds from issuing debentures, loans, bonds and other short/
- Long-term borrowings

### Cash Outflows from financing activities include;

- Cash repayments of amounts borrowed.
- Interest paid on debentures and long-term loans and advances.
- Dividends paid on equity and preference capital.

Components of Balance sheet

Balances

Total inflows

Total out flows

Net cash position

## Components of a cash flow plan.

A cash flow plan has 4 major components

- ✓ The cash inflows that shows the sources from where cash will flow into the business
- ✓ The cash outflows that shows where cash from the business will go to
- ✓ The net cash position which shows the net effect of the business cash in and cash out ie the difference between cash inflow and cash outflow
- ✓ Balance brought forward ie this is the balance that remained in the previous period and then forwarded to the following period e.g the remaining balance in January will be brought forward in February

## Sources of cash inflows

- ✓ Cash at the start of the plan period. This is cash that was left in the business from the previous plan period , it may be in the bank or in the business lockers/ safes as the plan period begins
- ✓ Cash from sales ie total cash realized by a business through the sale of goods or services that it is dealing in.  
Total sales = Number of units sold X price of the items
- ✓ Share capital ie money that business receives from its owners by way of their contribution towards its capital
- ✓ Cash from debtors ie money received from customers or clients in settlement of what they owe to the business. (cash payments from customers for credit sales made to them)
- ✓ Cash from loans ie cash received by the business from loans or credit facilities granted by its partners. They normally comprises of obligations on part of the recipient to pay back the principal and interest at a later date
- ✓ Cash grants ie money that a business may receive through donations from its well – wishers or partners

- ✓ Other cash in ie any other money received which does not fall into any of the above categories e.g from the sale of fixed assets , dividends etc
- ✓ Total cash. This involves adding up all expected cash receipts from all sources. This helps in making a cash flow statement

#### Sources of cash outflow

- ✓ Direct costs, these include purchase of raw materials or stock (for producing good or acquire merchandise for sale, cash payment on wages and other labour related expenses
- ✓ Cash payment on other labour related expenses. These will be in respect of business workers who help in its productive and administrative processes. These include welfare, transport, insurance, training etc
- ✓ Cash payment for indirect or overhead costs, a business normally makes other payments other than labour and raw materials, these can include rent, depreciation, electricity, water, salaries of workers that do not directly produce goods or services
- ✓ Cash payments for equipment and other fixed assets ie expenses incurred when buying machinery, equipment, furniture, buildings, motor vehicles and other fixed assets
- ✓ Cash payments to shareholders, this refers to cash a business pays to owners or shareholders, normally a percentage of profits is allocated to them as a rate of return on investment
- ✓ Loan interest payment, the interest that the business will pay each month to an individual or institutions that lent it money

#### Net cash position

This is the difference between the planned inflows and outflows. It portrays the residual cash position of the business at a given period of time

The net cash position indicates whether a business has enough cash to cover the expected cash payment or not

A negative balance for a "monthly" net cash position indicates a serious problem for the business. It indicates that total cash inflow will not be enough to meet the expected cash payments

In such situations, an entrepreneur will have to find a way of increasing cash inflows or reduce the expected cash outflows

Note. non- cash inflow and outflow items are excluded because they don't involve actual movement of cash e.g depreciation, discounts, debtors, creditors etc.

1. The following information is for **NALWOGA JOSEPHINE GENERAL ENTERPRISES** for the months of June and July 2014

<b>DETAILS</b>	<b>JUNE (shs)</b>	<b>JULY (shs)</b>
Purchase of equipments	4,000,000	5,000,000
Payment of salaries	180,000	2,000,000
Receipts from sales	2,000,000	3,000,000
Loan from Stanbic bank	6,000,000	4,000,000
Repayment of loan installment	1,000,000	900,000
Payment of rent	120,000	140,000

Purchase of raw materials	2,000,000	3,000,000
Sale of refreshment	5,300,000	6,000,000
Tax	200,000	240,000
Debtors	600,000	700,000
Creditors	320,000	300,000
Purchase of furniture	360,000	340,000
Donations from friends	400,000	280,000
Disco collections	8,000,000	9,000,000
Disposal of old furniture	240,000	200,000
Rates	300,000	320,000
Transport expenses	200,000	180,000
Installation of utilities	500,000	400,000
Video collections	320,000	400,000
Electricity bills	140,000	144,000

Required:

- (a) Prepare **NALWOGA JOSEPHINE GENERAL ENTERPRISES** cash flow statement for the two months
- (b) State **NALWOGA's** cash position for the two months and give your comments

**NALWOGA JOSEPHINE GENERAL ENTERPRISES**  
**CASH FLOW STATEMENT**  
**FOR THE MONTH OF JUNE AND JULY 2012**

Transaction	June ( shs)	July (shs)
Balance b/f	-	13,260,000
<b><u>Cash inflow</u></b>		
Receipts from sales	2,000,000	3,000,000
Loan from centenary bank	6,000,000	4,000,000
Sale of refreshments	5,300,000	6,000,000
Donations from friends	400,000	280,000
Disco dance collection	8,000,000	9,000,000
Disposal of old furniture	240,000	200,000
Video collections	320,000	400,000
<b>Total cash inflows</b>	<b>22,260,000</b>	<b>22,880,000</b>
<b>Total cash available</b>	<b>22,260,000</b>	<b>36,140,000</b>
<b><u>Less cash outflow</u></b>		
Purchase of equipments	4,000,000	5,000,000
Payment of salaries	180,000	2,000,000
Repayment of loan installments	1,000,000	900,000
Payment of rent	120,000	140,000
Purchase of raw materials	2,000,000	3,000,000
Tax	120,000	240,000
Purchase of furniture	360,000	340,000
Rates	300,000	320,000
Transport expenses	200,000	180,000
Installation of utilities	500,000	400,000
Electricity bills	140,000	144,000
<b>Total cash outflow</b>	<b>9,000,000</b>	<b>12,664,000</b>
<b>Net Cash Position</b>	<b>13,260,000</b>	<b>23,476,000</b>

**b)** In the month of June the business had net cash position of 13,260,000 where inflows exceeded outflow

In the month of July the business had the net cash position of 23,476,000 where the inflows exceeded outflows

However the business performed better in the month of July than June

2. The following show EKANYA ENTERPRISES' transactions for the months of June and July, 2006

<b>Transactions</b>	<b>June</b>	<b>July</b>
Purchase of assets	2,000,000	2,500,000
Payment of wages	90,000	1,000,000
Receipts from sales	1,000,000	1,500,000
Loan	3,000,000	2,000,000
Repayment of loan installment	500,000	450,000
Payment of rent	60,000	70,000
Purchase of raw materials	1,000,000	1,500,000
Sale of refreshment	2,650,000	3,000,000
Tax	100,000	120,000
Debtors	300,000	350,000
Creditors	160,000	150,000
Acquisition of furniture	180,000	170,000
Grants from friends	200,000	140,000
Disco dance collections	4,000,000	4,500,000
Sale of old furniture receipts	120,000	100,000
Rates	150,000	160,000
Transport expenses	100,000	90,000
Installation of new machinery	250,000	200,000
Cinema collections	160,000	200,000
Electricity bills	70,000	72,000

**Required to:**

- Prepare EKANYA ENTERPRISES' cash flow statement of the two months
- State the cash position of EKANYA ENTERPRISES for the two months

**EKANYA ENTERPRISES  
CASH FLOW STATEMENT  
FOR THE FEBRUARY AND MARCH 2006**

<b>Transactions</b>	<b>February(shs)</b>	<b>March (shs)</b>
Balance b/f	-	6,630,000
<b><u>Cash inflow</u></b>		
Receipts from sales	1,000,000	1,500,000
Loan	3,000,000	2,000,000
Sale of refreshments	2,650,000	3,000,000
Grants from friends	200,000	140,000
Disco dance collections	4,000,000	4,500,000
Sale of old furniture receipts	120,000	100,000
Cinema collections	160,000	200,000
<b>Total cash inflow</b>	<b>11,130,000</b>	<b>11,440,000</b>



Total cash available	<b>11,130,000</b>	<b>18,070,000</b>
<b>LESS <u>cash outflow</u></b>		
Payment of assets	2,000,000	2,500,000
Payment of wages	90,000	1,000,000
Repayment of loan installment	500,000	450,000
Payment of rent	60,000	70,000
Purchase of raw materials	1,000,000	1,500,000
Tax	100,000	120,000
Acquisition of furniture	180,000	170,000
Rates	150,000	160,000
Transport expenses	100,000	90,000
Installation of new machinery	250,000	200,000
Electricity bills	70,000	72,000
Total cash inflow	<b>4,500,000</b>	<b>6,332,000</b>
Net cash position	<b>6,630,000</b>	<b>11,738,000</b>

**b)** In the month of February the business had a net cash position of 6,630,000 (surplus) where the inflow exceeded outflows

In the month of March, the business had a net cash position of 11,738,000 (surplus) where the inflows exceeded outflows. The business performed better in March than in February

3. The following information relates to the business of MUSAAZI ENTERPRISES for the months of October, November and December 2012

- Cash balance brought forward from the month of September shs 20,000,000
- Monthly cash sales shs 9,000,000
- Monthly credit sales were shs 4,000,000 but repayment would be made in the following months
- The business bought furniture in the month of November 2012 with shs 1,000,000
- Monthly cash purchases were shs 500,000
- The business acquired a loan shs 12,000,000 in October to be paid in two equal installments in the following months
- Monthly salary bill was shs 700,000
- Business received cash donation of shs 750,000 during the month of November
- The business bought machinery worth shs 8,000,000 and paid shs 3,000,000 in the month of October and the remaining amount would be paid in two equal installments in the following two months

**Required**

- a) Work out MUSAAZI ENTERPRISES cash flow statement for the months of October, November and December
- b) Explain the cash position of the business



**MUSAAZI ENTERPRISES  
CASH FLOW STATEMENT  
FOR THE MONTH OF OCTOBER, NOVEMBER AND DECEMBER**

Transaction	October (shs)	November (shs)	December (shs)
<b>Balance b/f</b>	20,000,000	36,800,000	39,850,000
<b><u>Cash inflow</u></b>			
Cash sales	9,000,000	9,000,000	9,000,000
Credit sales	–	4,000,000	4,000,000
Loan	12,000,000	–	–
Cash donation received	–	750,000	–
<b>Total cash inflow</b>	<b>21,000,000</b>	<b>13,750,000</b>	<b>13,000,000</b>
<b>Total cash available</b>	<b>41,000,000</b>	<b>50,550,000</b>	<b>52,850,000</b>
<b>LESS <u>cash outflow</u></b>			
Purchase of furniture	–	1,000,000	–
Cash purchases	500,000	500,000	500,000
Loan payment	–	6,000,000	6,000,000
Salary bill	700,000	700,000	700,000
Purchase of machinery	3,000,000	2,500,000	2,500,000
<b>Total cash outflow</b>	<b>4,200,000</b>	<b>10,700,000</b>	<b>9,700,000</b>
<b>Net cash position</b>	<b>36,800,000</b>	<b>39,850,000</b>	<b>43,150,000</b>

b) During the month of October, the business had cash position surplus of shs 36,800,000 hence was able to meet its cash outflows

During November, the business had cash position surplus of shs 39,850,000 hence able to meet its cash outflows

During December, the business had cash position of surplus shs 43,150,000 hence able to meet cash outflows

However the business performed better in the month of December than October and November

4. The table below relates to the expected sales of Malusa enterprises for the months of January to April 2010

Months	January	February	March	April
Sales (shs)	60,000,000	70,000,000	50,000,000	90,000,000

Note

- i. The company receives 60% of sales in the month of sale and the balance in the next month.
- ii. The company is to receive extra share capital in the months of January and March of shs 20,000,000 respectively.
- iii. The company expects a loan in February of shs 18,000,000
- iv. There is a rent refund in February of shs 2,200,000
- v. In the month of march it expects a grant of shs 4,000,000
- vi. The company expects to buy raw materials worth 30% sales per month

- vii. The company expects to pay salaries to workers to shs 12,200,000.
- viii. Electricity charges are projected at shs 1,320,000 per month.
- ix. The returns to URA per month is to be shs 3,600,000
- x. Payment of water bills per month is to be shs 3,600,000
- xi. Loan repayment per month is expected to be shs 3,000,000 beginning with the month that follows the acquisition of loan.
- xii. Cash balance as per 31<sup>st</sup> December 2009 was shs 20,540,000

**Required**

- a. Use the information above to prepare a cash flow statement for Malusa Enterprises
- b. Advise him on what he can do to save the situation in case of a given a negative cash flow position

**MALUSU ENTERPRISES  
CASH FLOW STATEMENT  
FOR THE MONTHS OF JANUARY – APRIL 2014**

PARTICULARS	JANUARY SHS	FEBRUARY SHS	MARCH SHS	APRIL SHS
Cash balance b/d	20,540,000	37,820,000	82,300,000	125,580,000
<b><u>Cash inflows</u></b>				
Receipt from sales	36,000,000	42,000,000	30,000,000	54,000,000
Balance of sales		24,000,000	28,000,000	20,000,000
Share of capital	20,000,000		20,000,000	
Loan		18,000,000		
Rent refund		2,200,000		
Grant			4,000,000	
<b>Total cash inflows</b>	<b>56,000,000</b>	<b>86,200,000</b>	<b>82,000,000</b>	<b>74,000,000</b>
<b>Total cash available</b>	<b>76,540,000</b>	<b>124,020,000</b>	<b>164,300,000</b>	<b>199,580,000</b>
<b><u>Cash outflows</u></b>				
Purchase of raw materials	18,000,000	2,100,000	15,000,000	27,000,000
Salaries	12,200,000	12,200,000	12,200,000	12,200,000
Electricity charge	1,320,000	1,320,000	1,320,000	1,320,000
Water bills				
URA remittance	3,600,000	3,600,000	3,600,000	3,600,000
Loan repayment			3,000,000	3,000,000
<b>Total cash outflow</b>	<b>38,720,000</b>	<b>41,720,000</b>	<b>38,720,000</b>	<b>50,720,000</b>
<b>Net cash position</b>	<b>37,820,000</b>	<b>82,300,000</b>	<b>125,580,000</b>	<b>148,860,000</b>

The following were projections of John Musoga Traders for the months of March, April, May and June 2017

- i. The business had a net cash deficit of shs 60,000,000 at the end of February 2017
- ii. Expected monthly cash sales are to amount to shs 20,000,000. The cash sales are expected to decrease by 20% after the first two months. Credit sales were projected at shs 8,000,000 monthly with 60% of payments expected in the month of sale and the balance in the following months less 10% discount.
- iii. Monthly cash purchases are expected to be shs 12,000,000. This was expected to increase by 12% monthly basing on projected demand.
- iv. Monthly credit purchases are expected to be 40% of total monthly sales whose payments are to be made in the following month less 5% discount.
- v. A monthly salary for 20 workers was expected to be shs 400,000 per worker. Two workers are to be terminated at the end of the second month and no replacement is expected to be made
- vi. The business planned to get a loan of shs 16,000,000 in the first month with a repayment grace period of one month after acquisition. Its payable is in two equal installments with an interest rate of 10% payable on reducing balance method.
- vii. The business planned to sell old machinery worth shs 4,000,000 in May and receive initial payment of shs 1,800,000 and the balance in the following month. The depreciation is at a rate of 5% per annum
- viii. Rent receivable was to increase by 10% monthly. Rent received at the end of February was shs 1,000,000
- ix. A cooler worth shs 10,000,000 was to be bought in March on hire purchase basis. Down payment of shs 4,000,000 was to be made and the balance to be paid in the ratio of 2/4, 1/4 and 25% the coming month repetitively
- x. Advertisements of shs 3,000,000 were to be paid for at the end of June 2017
- xi. Creative sales persons are to receive commission of 5% of the month's cash sales revenue
- xii. Any cash shortage is to be offset with debenture at the beginning of the next month with an interest rate of 10% per month for 4 months payable together with the debenture after 4 months from the month of debenture acquisition

**Required**

- a) Prepare the cash flow statement for the business for the period of March to June 2017
- b) Comment on the trend of net cash position of the business
- c) Advise the business on the measures to adopt to overcome any cash deficit

JOHN MUSOGA TRADERS  
CASH FLOW STATEMENT  
FOR THE MONTHS OF MARCH, APRIL, MAY AND JUNE 2017

DETAILS	MARCH SHS	APRIL SHS	MAY SHS	JUNE SHS



Cash balance	(60,000,000)	(43,100,000)	(7,430,000)	(18,221,800)
Add cash inflows;				
Cash sales	20,000,000	20,000,000	16,000,000	16,000,000
Receipts from debtors	4,800,000	8,000,000	8,000,000	8,000,000
Loan	16,000,000			
Rent receivable	1,100,000	1,210,000	1,331,000	1,464,100
Sale of old machinery			1,800,000	2,200,000
Debenture		43,100,000	17,430,000	18,221,800
<b>Total cash inflows</b>	<b>18,100,000</b>	<b>29,210,000</b>	<b>27,131,000</b>	<b>22,664,100</b>
<b>Less :cash out flows</b>				
Cash purchases	12,000,000	13,440,000	15,052,800	16,859,136
Payment to creditors		11,200,000	1,552,800	16,859,136
Workers' salaries	8,000,000	8,000,000	7,200,000	7,200,000
Loan principal payment		8,000,000		8,000,000
Interest on loan		1,600,000		800,000
Purchase of cooler	4,000,000	3,000,000	1,500,000	1,500,000
Advertisements				3,000,000
Commission	1,000,000	1,000,000	800,000	800,000
<b>Total cash out flows</b>	<b>25,000,000</b>	<b>36,640,000</b>	<b>45,352,800</b>	<b>47,759,136</b>
<b>Net cash position</b>	<b>(43,100,000)</b>	<b>(7,430,000)</b>	<b>(18,221,800)</b>	<b>(20,095,036)</b>

### NET CASH POSITION

John musoga had a deficit of shs 43,100,000 by the end of March 2017

It reduced to a deficit of shs 7,430,000 by the end of April 2017

The business also had a deficit of shs 18 221,800 by the end of May

The business performance for four months was not good

### EXAMPLE FOUR

The following information relates to projections made by mbale vendors' association for the months of January, February, March and April 2018

Projected cash and bank balances as at December shs 20,000,000

Sales will be both cash and credit. January cash sales will be 800 units at price of shs 10,000 each. Thereafter, cash sales will increase at a rate of 5% per month. Credit sales for each month are expected to be shs 5,500,000. Debtors will be expected to pay in the month of sale.

The business plans to buy 15 computers at shs 650,000 each in March. And import duty of 5% on total cost will be paid in addition.

Monthly expected expenses and payments include salaries and wages shs 30,000,000, machine servicing shs 300,000, depreciation shs 100,000. Salaries for April will be paid in the month of March.

The business is paying back a loan of shs 10,000,000 previously obtained. Monthly installments amount to shs 2,000,000 per month starting in February. The loan attracts interest of shs 100,000 per month also payable starting February

The business will buy 900 units of raw materials at shs 6,000 each in the month of January. The quantity of raw materials is expected to increase by 10% every month. Purchase of raw materials is strictly on cash basis.

The business expects to receive shs 10,000,000 as a donation in April and plans to sell off an old motor van at shs 9,000,000 in March.

Required; prepare Mbale vendors` association`s cash flow statement for the period of January to April 2018

### MBALE VENDORS` ASSOCIATION`S

#### Cash flow statement

For the period of January, February, March and April 2018

Details	January	February	March	April
Balances b/f	20,000,000	(2,200,000)	(26,640,000)	(75,851,000)
Add cash inflows				
Cash sales	8,000,000	8,400,000	8,820,000	9,261,000
Receipt from debtors	5,500,000	5,500,000	5,500,000	5,500,000
Cash donations				10,000,000
Sale of old vehicle			9,000,000	
<b>Total cash inflows</b>	<b>33,500,000</b>	<b>11,700,000</b>	<b>(3,320,000)</b>	<b>(51,090,500)</b>
Less cash outflows				
Purchase of computer		9,750,000		
Import duty		487,500		
Salaries and wages	30,000,000	30,000,000	60,000,000	
Machine servicing	300,000	300,000	300,000	300,000
Loan repayment		2,000,000	2,000,000	2,000,000
Loan interest payment		100,000	100,000	100,000
Purchase of raw materials	5,400,000	5,940,000	6,534,000	7,187,400
<b>Total cash outflows</b>	<b>35,700,000</b>	<b>38,340,000</b>	<b>79,171,500</b>	<b>6,677,900</b>
Net cash position	(2,200,000)	(26,640,000)	(75,851,000)	<b>(57,768,400)</b>

5. Nakawa Trading Co. which plans to start a business, has availed the following projected details for the first six months of the year, 2016.

- i. Cash at bank shs 4,000,000 as at 1<sup>st</sup> Jan 2016
- ii. Cash sales for January 2016, shs 5,500,000. The sales are expected to increase by shs 500,000 every month. All sales will be by cash.
- iii. Capitalization loan to be acquired from Stanbic bank in February, 2016 shs 5,000,000.
- iv. Purchase of start-up assets during the month of February 2016, shs 5,000,000.
- v. Monthly payments starting with January 2016.
 

Salary and wages	1,500,000
Rent	500,000
Advertising	150,000
- vi. Pre-operating expenses to be paid January 2016 shs 4,200,000.
- vii. Monthly loan repayments shs 600,000 will begin June 2016.
- viii. Purchases occur in the month of sale and are expected to be 75% of each month's project sales. Purchases will be paid for after one month of purchase.

**Required:**

(a) Prepare a cash Flow statement for Nakawa Trading Co. for the period January to June 2016.

**NAKAWA TRADING COMPANY'S CASHFLOW STATEMENT FOR THE MONTH OF JANUARY, FEBRUARY, MARCH APRIL MAY AND JUNE 2016**

Particulars	Jan shs '000'	Feb shs '000'	Mar shs '000'	Apr shs '000'	May shs '000'	June shs '000'
Bal. b/f	—	3,150	7,000	7,225	7,575	8,050
Add cash inflows						
Share capital	4,000					
Cash sales	5,500	6,000	6,500	7,000	7,500	8,000
Capitalization loan		5,000				
<b>Total cash inflows</b>	<b>9,500</b>	<b>14,150</b>	<b>13,500</b>	<b>14,225</b>	<b>15,075</b>	<b>16,050</b>
Less cash outflows						
Purchase of startup assets		5,000				
Salary and wages	1,500	1,500	1,500	1,500	1,500	1,500
Rent	500	500	500	500	500	500
Advertising	150	150	150	150	150	150
Pre operating exp	4,200					
Loan repayment						600
Purchases			4,125	4,500	4,875	5,250
<b>Total cash outflows</b>	<b>6,350</b>	<b>7,150</b>	<b>6,275</b>	<b>6,650</b>	<b>7,025</b>	<b>8,000</b>
<b>Net cash position</b>	<b>3,150</b>	<b>7,000</b>	<b>7,225</b>	<b>7,575</b>	<b>8,050</b>	<b>8,050</b>

NB: 50% penalty applies where currency units are missing

6. The following information relates to projections made by Zanda for the months of January, February, March and April 2017

- i. Projected cash and bank balance as at December 31<sup>st</sup>, 2016 shs 20,000,000
- ii. Sales will be both cash and credit, January cash sales are expected to be 800 units at a price of shs 10,000 each. Thereafter, cash will increase at a rate of 5% per month. Credit sales for each month are expected to be shs 5,500,000. Debtors will be expected to pay the month of sale.
- iii. The business plans to buy 15 computers at shs 650,000 each in March. An import duty of 5% on total cost will be paid in addition.
- iv. Monthly expected expenses and payments include

	Shs
Salaries and wages	30,000,000
Machine servicing	300,000
Depreciation	100,000

Salaries for April will be paid in the month of March

- v. Zanda is paying back a loan of shs 10,000,000 previously obtained. Monthly installments amount to shs 2,000,000 starting February. The loan attracts interest of shs 100,000 per month also payable starting February.

- vi. The business will buy 900 units of raw materials at shs 6,000 each in January. The quantity of raw materials is expected to increase by 10% every month. Purchase of raw materials is strictly on cash basis.
- vii. Zanda expects to receive shs 10,000,000 as a donation in April and plans to sell off an old vehicle at shs 9,000,000 in March.

Required

- a) Prepare Zanda's cash flow statement for the period of January to April 2017.

**ZANA'S CASH FLOW STATEMENT**  
FOR THE MONTHS OF JAN, FEB, MARCH AND APRIL 2017

DETAILS	JAN	FEB	MARCH	APRIL
	SHS	SHS	SHS	SHS
Balance b/f	20,000,000	(2,200,000)	(26,640,000)	(82,194,500)
Add. CASH INLFOWS				
Cash sales	8,000,000	8,400,000	8,820,000	9,261,000
Receipts from debtors	5,500,000	5,500,000	5,500,000	5,500,000
Cash donations				
Sale of old vehicle			9,000,000	
Total cash inflows	33,500,000	11,700,000	(3,320,000)	(57,433,500)
<b>Less cash outflows;</b>				
Purchase of computers			9,750,000	
Import duty			487,500	
Salaries and wages	30,000,000	30,000,000	60,000,000	
Machine servicing	300,000	300,000	300,000	300,000
Loan repayment		2,000,000	2,000,000	2,000,000
Loan interest		100,000	100,000	100,000
Purchase of raw materials	5,400,000	5,940,000	6,237,000	6,548,850
Total cash outflows	35,700,000	38,340,000	78,874,500	89,488,50
net cash position	(2,200,000)	(26,640,000)	(82,194,500)	(66,382,350)

NB. The penalty of 50% applies where the candidate does indicate currency

**Exercise**

**1. Bibuuza trading company had the following transactions for year ended 2011**

- i. The company expects to sell goods every month worth shs 100,000,000 and receives only 80% in the month of sale and the balance to be received one month after the month of sale for all sales
- ii. Expected share capital from shareholders in June and July shs 6,000,000 and 8,000,000 respectively
- iii. Expected cash from debtors in July shs 10,000,000
- iv. Sale of old van in June shs 6,000,000
- v. Monthly credit sales shs 30,000,000 and payment is to be received from Debtors after every one month of sale



- vi. Loan is expected in May for shs 12,600,000 and it will attract an interest of 10% per month
  - vii. The grace period given to the business will be month and after one month it will start payment of the interest
  - viii. The company expected to pay raw materials worth shs 5,000,000 in the first month but this is to increase by 10% monthly
  - ix. By the end of April 2011, the company had a cash balance of shs 4,000,000
  - x. The company expected to buy a juice blending machine in May for shs 2,000,000 and pay cash of shs 1,000,000. The remaining amount to be paid in the ratio 4:2:2 respectively in the following month
  - xi. Purchase of fruit from farmers is projected at shs 2,000,000 which is to increase by 20% after the first 2 months
  - xii. Tax of shs 200,000 will be paid to KCCA monthly starting with the month of June
  - xiii. The dividends will be paid every after one month at a rate of 10% of average share capital for four months
  - xiv. The company is to make a commission payment of shs 12,000,000 monthly which is to reduce 5% monthly after the first 2 months
- You are required to prepare a cash flow plan for four months starting with May 2011

2. The following information relates to Umoja investments for the months of May, June, July and August 2015

- Opening balances as at 1<sup>st</sup> May 2012 was shs 320,000
- Output of 800,900,700 and 100 units were sold at shs 500 each during the months of May, June, July and August respectively
- Loans of shs 500,000 and shs 300,000 were obtained from inland bank ltd in June and August
- Receipts from debtors of shs 100,000, shs 80,000 and shs 30,000 were registered for the months of June, July and August respectively
- Purchases of 700, 800, 900 and 1,000 units of raw materials were made in the months of May, June, July and August respectively at a cost of shs 200 per unit
- Labour cost for the months of May, June July and August were shs 150,000, shs 120,000, shs 100,000 and 140,000 respectively
- A machine was bought and paid for in July for shs 1,000,000
- Monthly fixed cost of shs 20,000 per month were paid
- Monthly rent receivable from a shoe-shiner shs 50,000

**Required:**

- a) Prepare a statement showing cash inflows and cash outflows for the months of May to August 2015
- b) Comment on the cash position of Umoja Investments Ltd. For the four months
- c) suggest measures which should be under taken to avoid a deficit in the cash flow



3. GAGAMEL ENTERPRISES LIMITED located in Masindi wishes to operate a restaurant in Kigumba town soon and below is summary of its cash projections for the first three months of the year i.e. January to march 2014
- Cash sales shs 1,860,000 and shs 930,000 respectively
  - Loan from Faulu Uganda Ltd shs 1,450,000 in January
  - Receipts from debtors shs 890,000 in February and shs 925,000 in march
  - Cash purchases of shs 720,000, shs 480,000 and shs 240,000 respectively
  - Monthly direct wages of shs 48,000
  - Administrative expenses of shs 63,000 however expected to reduce by shs 2,000 after a month
  - Electricity of shs 48,000 per month to be incurred and paid
  - Selling expenses of shs 20,000 and shs 15,000 in January and march respectively
  - Corporation tax of shs 226,900 to be paid immediately after a month of commencement of operation
  - Cash purchase shs 250,000 in February, to be paid for the following month
  - A cash deficit in a given month is to be offset by getting a loan in the following month.

Required

- a) Use the above information to prepare a cash flow statement for the given period
- b) Comment on the cash position of the business
- c) Suggest measures that the business can undertake in case of a cash flow short fall

4. Vivian is a student of S.6 and she plans to open up a restaurant in her S.6 vacation. Here is a summary of her cash plan for the first three months of the year

- ❖ Cash sales shs 1,860,000, shs 1,395,000 and shs 930,000 respectively
- ❖ Loan form youth Development fund shs 1,450,000 in January
- ❖ Receipts from debtors shs 890,000 in February and shs 9,250,000 in march
- ❖ Cash purchase of shs 720,000, shs 480,000 and shs 240,000 respectively
- ❖ Direct wages of shs 48,000 each month
- ❖ Administrative expenses shs 63,000, shs 61,000 and shs 61,000
- ❖ Electricity shs 30,000 per month
- ❖ Selling expenses shs 20,000, shs 150,000 in January and March respectively
- ❖ Taxes shs 226,000 to be paid in march
- ❖ Cash purchases of assets shs 2,900,000 in January
- ❖ Credit purchases shs 250,000 in February to be paid for the following month
- ❖ A cash deficit is offset by getting a loan in the following month

**Required**

- a) Prepare a cash flow statement for the given period
- b) Comment on the cash position of the business
- c) Suggest measures that Vivian can take to avoid cash flow deficits

## **Controls to manage the flow of funds in a business or measure under taken to solve an anticipated cash deficit (cash flow short fall)**

- ✓ Looking for the possible ways of increasing cash sales, like through carrying out sales promotions
- ✓ Reducing the expenditure on some possible items, like salaries and wages bills so long as it will not affect the business image and operations
- ✓ Delaying some cash expenditures, for instance extending the payment for salaries and wages for workers on conditions that it will not affect productivity
- ✓ Acquisition or applying for a loan from possible financial institutions like Banks and other recognized credit institutions
- ✓ Carrying out strict monitoring and control cash inflows and outflows like monitoring cash sales and cash spent on purchases and other avenues so as to reduce / avoid cash mismanagement and misuse
- ✓ Encouraging more of cash sales than credit sales so as to increase inflows like offering cash discounts and other after sales services to prompt payers
- ✓ Bargaining with the financiers for a lower interest rate paid on loans, this however reduces cash spent on servicing the loan acquired
- ✓ Bargaining for a longer repayment period for the loan principle and the associated charges
- ✓ Sourcing possible suppliers who can offer good on credit, this will reduce the outright cash outflow on cash purchases, through extending payment at a later date
- ✓ Mobilizing more capital from owners (shareholders) or his own saving / sources if it is personal business
- ✓ Sourcing funds from friends and relatives in form of donations, grants etc. this however increases the cash inflows in the business

5. The following projections were made by MONDO during the month of January 2014.

- ✓ On January 1, 2014, the business had a cash balance of Shs. 33,000,000.
- ✓ The business expected to make credit sales of Shs. 12,000,000 monthly of which payment of 80% was to be made in the month of sale and the balance paid in the next month.
- ✓ The business was to get a loan of Shs. 3,000,000 in January. The loan was to attract an interest of 5% monthly after one month of grace period.
- ✓ The business expected a donation of Shs. 2,000,000 in January. This was to increase by 10% monthly.
- ✓ Cash sales expected monthly amounted to Shs. 20,000,000.
- ✓ The business had a policy of paying 2% commission on each sales.
- ✓ The business was to sell the old vehicle at Shs. 8,000,000 and receive 60% of the total price receive the balance in the ratio 3:2 in the following months.
- ✓ The business was to buy office desks in march each at a cost of Shs. 60,000.

- ✓ Monthly cash purchases expected at Shs. 17,000,000.
- ✓ Loan repayment was to be in two equal monthly principal installments.
- ✓ Credit purchases were expected to increase by 5% every month. Credit purchases made in January amounted to Shs. 18,000,000.
- ✓ Labour cost was expected at Shs. 600,000 per employee for 20 employees.
- ✓ The VAT of 18% was to be separately paid in response to the purchase of office desks.

**Required:**

- a) Prepare MONDO's monthly cash flow statement for four months.
- b) Comment on the trend of the Net Cash position of MONDO's business.

6. Amooti wholesalers plan to operate their business as follows, with projected details for four months of the year 2016.

- i. Share capital of shs 600,000 as at 1<sup>st</sup> march 2016
- ii. Cash sales for march 2016 shs 8,250,000 and sales to increase by shs 750,000
- iii. Monthly debts to be collected are shs 2,000,000, but expected to increase by shs 200,000 per month.
- iv. A loan worth shs 7,500,000 to be acquired from tropical bank in April 2016
- v. Monthly credit sales of shs 4,000,000. But 60% will be paid in the month of sale and balance to be paid in the following month.
- vi. Startup equipments worth shs 7,500,000 to be bought in April 2016.
- vii. Monthly expenses for servicing of refrigerators expected to be shs 200,000.
- viii. Monthly payments are salaries shs 2,250,000, security shs 750,000, insurance shs 225,000.
- ix. Monthly utility bills shs 750,000 are paid.
- x. Startup expenses of shs 6,300,000 paid in March.
- xi. Monthly loan repayment shs 900,000 will start in May.
- xii. Purchases are expected to be shs 2,000,000 monthly.

Required to:

- a) Prepare a cash flow statement for Amooti wholesalers for the period from March to June 2016
- b) Give any five importance of the cash flow statement to Amooti wholesalers

7. (a) Outline four main causes of cash flow problems in an enterprises  
 (b) KAPAPALA ENTERPRISES LTD has the following cash flow projections in the 1<sup>st</sup> quarter of the year 2017

- i) Cash shortfall brought down from last month of the last quarter 2014 was shs 5,890,000.
- ii) Commission income for the first quarter shs 6,000,000. This is to be spread in 3 months of the first quarter of the year in ratios 3:2:1 respectively.

- iii) Donations (first month of 1<sup>st</sup> quarter) shs 8,000,000.
- iv) Machine disposal (in 2<sup>nd</sup> month of the 1<sup>st</sup> quarter of the year) was projected to be shs 4,000,000
- v) A loan to be obtained in the 1<sup>st</sup> month of the 2<sup>nd</sup> quarter of the year shs 10,000,000. This will attract a monthly interest of 5% starting with the 2<sup>nd</sup> month of the 2<sup>nd</sup> quarter of the year.
- vi) Cash to be received from trade debtors as follows;
  - 1<sup>st</sup> month 3,040,000
  - 2<sup>nd</sup> month 5,360,000
  - 3<sup>rd</sup> month 7,280,000
- vii) Debentures of shs 16,820,000 and shs 5,740,000 for the 1<sup>st</sup> month and 2<sup>nd</sup> month of the 1<sup>st</sup> quarter respectively were to be obtained.
- viii) A cash refund of shs 900,000 is to be received from suppliers in the 1<sup>st</sup> quarter. This is in respect of overpayment made on cash purchases made in the last month of the previous quarter.
- ix) Monthly cash purchases to amount to shs 3,900,000
- x) Debenture repayment is to be effected in the last month of the 1<sup>st</sup> quarter and the 1<sup>st</sup> month of the 2<sup>nd</sup> month of the year for the two debentures obtained respectively.
- xi) Credit purchases for the period are projected to be shs 21,000,000 in the last month of the 1<sup>st</sup> quarter. However, no payments to credit supplier's will be made until 2<sup>nd</sup> month of the 2<sup>nd</sup> quarter.
- xii) Equipments are to be purchased during the 1<sup>st</sup> month of the 1<sup>st</sup> quarter at a cost of shs 16,000,000
- xiii) The enterprise projects monthly cash sales of shs 20,950,000. This will attract a monthly sales tax of 15% per the cash sales made in that month.
- xiv) Audit fees per month are to be shs 750,000. This will be paid once in the last month of the 1<sup>st</sup> quarter.
- xv) Wages and salary bills per month will total to shs 810,000.
- xvi) Purchase of machinery in the 2<sup>nd</sup> month of the 1<sup>st</sup> quarter of the year is to cost shs 5,000,000.
- xvii) Repairs and Maintenance per month are to cost the enterprise shs 320,000.
- xviii) Non – current assets to depreciate at a rate of 3% by the end of the 1<sup>st</sup> quarter.
- xix) Rent income of shs 650,000 per month is projected in the 1<sup>st</sup> quarter of year starting with the 1<sup>st</sup> month.

You are required to prepare Kapapala's cash flow statement for the 1<sup>st</sup> quarter of the year.

What measures can Kapapala enterprises Ltd put in place in order to avoid cash short falls in the subsequent period?

8. SMART BUSINESS CENTRE presented the following cash inflow and cash outflows for the month of august 2017.

August 2017	amount (shs)
Balance c/d	8,400,000
Cash inflows	
Cash sales	250,000,000
Cash collected from debtors	43,000,000
Loan from centenary bank	30,000,000
Penalties for delayed payments	1,500,000
Commission income	6,000,000
Interest on cash deposits	500,000
Donations and grants received	30,000,000
<b>Total cash inflows</b>	<b>369,400,000</b>
<b>Cash outflows</b>	
Purchase of stock	110,000,000
Labour cost	60,000,000
Power and utilities	5,000,000
Administrative costs	1,500,000
Payments to creditors	50,000,000
Purchase of machinery	21,000,000
Total cash outflow	247,500,000

However the following projections are available for the months of September, October and November 2017.

- ✓ Cash sales revenue is expected to increase by 5% in September and October. It will drop by shs 500,000 in the month of November.
- ✓ Cash collections from debtors will increase by 10% in September and October. No cash will be received from Debtors in the month of November
- ✓ No further loans will be received until December 2017.
- ✓ Commission income is expected to double in the month of September and reduce by  $\frac{1}{3}$  of September's commission income in the next two months.
- ✓ SMART Business Centre will continue receiving interest on deposits equivalent to what was received in August.
- ✓ Donations and grants were received only in August and no further penalties on delayed payments will be charged.
- ✓ De-capitalization of Assets will be done in September and this will generate shs 13,000,000.
- ✓ Cash purchase of stock will be maintained at the same level in September and October. However it will drop by 10,000,000 in the month of November.
- ✓ Labour costs for September, October and November will also be the same as that of August.
- ✓ Power and utilities will also be the same as they appear in August.
- ✓ There will be an increase of shs 500,000 monthly in the administrative costs.
- ✓ The business is expected to start paying corporation tax every month of shs 2,000,000. However, this will be paid as a single sum in November.
- ✓ The loan acquired in August will be paid back in 6 installments starting in the month of September.
- ✓ SMART Business Centre will pay a monthly interest on the loan at a rate of 5% on reducing balance starting in September.

- ✓ The will donate shs 1,000,000 to Good Samaritan children's Centre in September. This will increase by 4% every month.
- ✓ The proprietor is expected to use shs 1,600,000 every month for his family needs starting in October 2017.

**Required**

- i. Prepare a cash flow statement for SMART BUSINESS CENTRE for the months of September, October and November 2017.
- ii. Interpret the Net cash position of the business.

9. Jabex limited a company dealing in general merchandise, expected opening balance of shs 30 million in January 2014. The budgeted sales for the months were as given below

Month	shs (000)
November 2013	80,000
December 2013	90,000
January 2014	75,000
February 2014	75,000
March 2014	80,000

Analysis of records shows that customers settle their debts in their following pattern

- 60% within the month of sales
- 25% the following month
- 15% in the second month after sale.

Extracts from the purchase budgeted were as follows

	(Shs 000)
December	60,000
January	55,000
February	45,000
March	55,000

- All purchases are collected on credit and past experience show that 90% are settled in month of purchase and the balance in the following month.
- Wages of 15 million, transport (expenses) of shs 20 million including depreciation of 5 million are settled monthly
- Tax of shs 8 million is to be paid in February and the company will receive settlement of an insurance claim of shs 25 million in March.

**Required**

Prepare the statement of cash flow for the business for three months starting with January 2014.

Interpret the net cash position of the business

10. The following projections relate to Kakira Enterprises during the months of May, June, July and August 2017.
  - i. On May 1, 2017 the enterprise had a cash balance of Shs. 40,000,000 and Bank balance of Shs. (8,000,000).
  - ii. Outputs of 600 units, 650 units, 750 units and 950 units each at Shs. 1,200 were to be sold in the months of May, June, July and August on cash basis.
  - iii. Monthly credit sales were projected to be 25% of cash sales but payment would be received next month less 5% discount.

iv. Donations were projected as follows;-

Month	Shs
May	1,000,000
June	1,800,000
July	1,500,000
August	3,000,000

v. The business receives monthly rent income from its property. Rent received on 30<sup>th</sup>. June was Shs. 600,000 but this was expected to increase by 10% after one month.

vi. Inputs of 500 units, 800 units, 1100 units and 1400 units each at Shs. 950 were to be purchased on cash basis.

vii. Monthly expenses were projected as follows;-

Expenses	Shs
Utilities	250,000
VAT	180,000
Advertising	100,000

In July, no VAT was paid.

viii. Credit purchases of Shs. 900,000 were made in June. The business has a policy of paying for credit purchases in 2 equal installments after on month.

ix. The business has a policy of paying a 5% sales commission on total monthly sales. No commission was paid in the first 2 months.

You are required to;-

a) Prepare Kakira Enterprises' cash flow statement for four months

b) Advise Kakira Enterprises on various ways of managing business cash surpluses

11. The following information belongs to Kampala traders

particulars	shs
Cash at hand on 01.04.2014	25,000,000
Monthly salaries and wages	10,000,000
Interest payable in 2014	5,000,000
Cash sales	
May	140,000,000
June	152,000,000
July	121,000,000
Credit sales	
April	100,000,000
May	80,000,000
June	140,000,000
July	120,000,000
Credit purchases	
April	160,000,000
May	170,000,000
June	240,000,000
July	180,000,000
Transport	
April	18,000,000
May	20,000,000



June	22,000,000
July	21,000,000

Additional information

- i. 50% of credit sales are collected in the same month of sales and balance collected in the following month.
- ii. Collection from credit sales are subjected to 5% cash discount of the payment received in the same month of sale
- iii. Transport is payable in the same month of occurrence
- iv. An old van will be sold in July at shs 300,000
- v. Monthly credit purchases amount to shs 150,000,000 paying 70% in the month of purchase and the balance payable in the following months
- vi. These credit purchases attract a cash discount of 2% of the amount of money payable that month

Required

- a) Prepare a cash flow statement for May, June and July 2014
- b) State the net cash position of Kampala traders ltd
- c) How can Kampala traders improve on their net cash position?

12. Opera enterprises operates a maize mill. The information below relates to the maize mill for the year 2017.

- i. Opening cash balance as 1<sup>st</sup> January 2017 shs 2,200,000
- ii. Sales in Kg:

January	90,000
February	100,000
March	80,000
April	20,000

Each kg was sold at shs 500 on cash basis
- iii. Obtained shs 10,000,000, 15% interest on loan from ADC bank in two instalments; shs 6,000,000 in February and shs 4,000,000 in April.
- iv. Receipts from debtors were shs 2,000,000, shs 900,000 and shs 400,000 for the months of February, march and April respectively
- v. Production of raw materials in kg used were as follows

January	6,000
February	7,000
March	8,000
April	9,000

The above raw materials cost shs 2,000 per kg
- vi. Labour costs for; January were shs 2,000,000, February shs 1,800,000, March shs 1,700,000 and April shs 1,950,000.
- vii. Production expenses; January shs 500,000, February shs 300,000, March shs 300,000 and April shs 450,000.
- viii. Monthly administrative and marketing expenses shs 300,000
- ix. A generator was bought at shs 20,000,000 on credit in January. Half of the cost was paid in March and the balance in April 2017, paid in two weeks' time.
- x. Thieves broke into the office and stole shs 70,000,000



Required

- a) Prepare Opira enterprises' cash flow statement (cash budget) for the months of January, February, March and April 2017
- b) Propose ways of minimising cash deficits in the business

## **BUSINESS CALCULATIONS AND FINANCIAL ANALYSIS**

Reasons for carrying out business calculations /book keeping information

- To enable the business owner to identify whether the business is making profits or not.
- To make it easy to identify the total sales made in a given period of time.
- To enable the business owner to identify the performance of the business.
- To enable the business owner to obtain a bank loan.
- To enable the business owner to create a basis for future planning.
- To help in tax assessment on business activities.
- To provide information to potential investors who may wish to invest in the business.
- To provide information to business advisors and consultancy firms.

### **COMMON TERMS USED IN BUSINESS CALCULATIONS.**

- **Purchases.** These are goods bought in the business for the purpose of reselling them to get profits.
- **Sales / Turnover.** Refers to the total amount of goods sold in the business for the purpose of reselling them to get profits
- **Return inwards.** These are goods which are initially sold to customers but later returned to the business premises. This may arise out of poor quality, damage, expiry date, wrong colour and size etc. return inwards reduce the value of total sales and they are therefore subtracted from the total sales of the business in order to obtain the total Net sales.
- **Return outwards.** These are goods returned to the suppliers after initially buying them from them. (From where they were purchased). Goods may be returned to suppliers due to poor quality, damage, expiry dates, and wrong colour or size etc. returns outwards reduce the value of purchases and are therefore, subtracted from the total purchases in order to obtain the "Total Net purchases"
- **Rate of stock turnover.** This refers to the number of times business' stock is replaced. It measures the speed at which the stock of a business is cleared in a year. It is arrived at by dividing the cost of sales by average stock
- **Debtors.** It refers to a person or firm that owes the business money I.e a person or firm supposed to pay business money. e.g a person to whom the business has supplied goods on credit.  
**Note: debtors are a current asset to the business**
- **Creditors.** This is a person or firm to whom the business owes money. I.e a person or firm that is supposed to be paid by the business. E.g a supplier of goods to the business on credit.  
**Note: creditors are a current liability to the business**
- **Drawings.** It refers to money or goods taken from the business by the owner for personal or private use. Drawings are subtracted from capital because they reduce the capital of the business. i.e capital – drawings
- **Solvency.** This is an economic state where the business has more assets than liabilities and therefore capable of paying its debts from its own sources.

- **Insolvency.** This is an economic situation where the business has more liabilities than its assets and the business is unable to meet its debts from its own sources. This implies that the business cannot pay its debts even if it sells off its assets.  
**N.B** insolvency is not same as bankruptcy. A business may be insolvent and may still continue trading and may even be able to wipe off the deficiency. But once it is declared bankrupt, it must cease functioning, sell off its assets and distribute the proceeds among creditors in ratio of their debts
- **Bankruptcy.** This is an economic situation where the business has excessive liabilities or debts and it cannot even pay them.
- **Stock taking / stock counting.** This is the physical counting of the goods in the business after a given period of time.
- **OVER TRADING.** It's a situation where a firm has more or too much stock compared to other current assets

#### **Criticism/ dangers of over trading / dangers of holding too much stock**

- Storage facilities may be inadequate hence stock may be insecure, damaged or stolen
- Price fluctuations or uncertainties in the market like unexpected decline in demand causing losses
- If the stock is not sold quickly, the firm may run short of working capital to meet the day to day activities
- Stock may become obsolete / outdated
- **Stock evaluation.** This is the monetary value of the stock counted for a given period of time.
- **Capital.** This is the money or physical items such as machinery invested in the business with the aim of making profits
- **Working capital.** This is the amount of money needed for daily running of the business  
**OR.** Is the excess of current assets over current liabilities of a business (Net Current Assets). It is given by
- **Working Capital = Current Assets – Current Liabilities**  
Note: when the current liabilities exceed current assets, the business is said to be Deficient of working capital and this situation is called **Deficiency**
- **Liquid capital.** It refers to current assets that can easily convert and quickly be converted into cash. I.e Quick assets. They include cash at hand. Cash at bank and debtors  
**Note.** Closing stock is excluded because it takes a little bit of time to be sold on credit first and later cash is collected after a given credit period  
N.B. liquid funds means **cash at hand** and **cash at bank** only

- **Capital employed.** This refers to the total assets used in the business or summation of fixed assets and working capital.
- **Borrowed capital.** This is the amount of money borrowed by the business and it's to be paid back after a long period e.g Bank loan , Debenture and Mortgage
- **Circulating capital.** These are total current assets whose value keeps on changing.
- **Margin.** This is the ratio of Gross profit to Net sales expressed as a percentage.
- **Markup.** This is the ratio of Gross Profit to Cost of sales express as a percentage
- **BALANCE SHEET.** It's a financial statement prepared to show the financial position of a business at a given date/ period of time

## OR

It is a financial statement that shows the value of assets, liabilities and capital of a business as a particular date

- **Stock.** This refers to the unsold goods of a business at a given period of time. It is of two categories i.e

**a) Opening stock.** It refers to the unsold goods held by a business at the beginning of a trading period is also called stock at start

**b) Closing stock.** It refers to the unsold goods held by the business at the end of a trading period. It is also called stock at hand or stock at close

- **LIABILITIES.** These are debts or financial obligations of a business to the outsider, ie debts that must be paid by the business to the owner or outsiders. Liabilities are of two categories

**a) Long term liabilities.** These are claims or debts of a business payable over a long period of time ie over one year. E.g loans , debentures, capital, creditors

**b) Current / short term liabilities.** These are debts of a business payable within a short period of time not exceeding one year. E.g creditors, bank overdraft, accrued, unpaid expenses, incomes received in advance , Expenses due, arrears

- **ASSETS.** These are properties of value owned and used by a business to generate income. They are categorized into two i.e current and fixed assets

**a) Fixed assets (Non-current assets).** These are properties of value acquired by a business for use over a long period of time I.e more than one year and are not for resale e.g buildings, machinery, furniture, motor vehicle, fixtures and fittings, equipments, tools, textbooks, Good will etc

**b) Current assets.** These are properties of value uses by a business for a short period of time i.e not exceeding one year. E.g not exceeding one year. E.g closing stock, debtors, cash in hand, prepaid expenses, income earned but not yet received etc some of them are used in the day to day running of the business while others are for resale like stock

- **GROSS PROFIT.** It's the excess of selling price over cost price or the excess of net sales/turn over, over cost of sales i.e  $\text{Gross profit} = \text{sales / turn over} - \text{Cost of Sales}$

- **NET PROFIT.** This is the actual profits of a business after subtracting all expenses from the gross profits. i.e **Net profit = Gross profit – Expenses**

**Note:** net profit is added on to capital of the business in the balance sheet because it increases capital

- **NET LOSS.** It's where the business expenses exceed the gross profit. It's subtracted from capital in the balance sheet. i.e **Capital – Net Loss**

Note: Gross and Net profit shall be discussed and calculated later in the chapter

- **Expenses.** These are costs incurred to keep the business operating e.g Rent, Electricity bills, transport, salaries and wages, insurance premiums, advertising

costs, postage and stationery, bad debts, depreciation of fixed assets, carriage on sales etc.

- **UNDERTAKING.** It is where a firm has less stock compared to other current assets
- **Capitalization.** refers to how the business has financed its assets ie (private finance or borrowed finance)
- **UNDER CAPITALIZATION.** this is where a business invests most of its capital or money in fixed assets than current assets hence making it less profitable  
**Note.** This means that the business will constantly borrow from outside to get working capital  
**UNDER CAPITALIZATION.** This is where the firm's current assets are most than its fixed assets  
**Bad debt.** This refers to a debt that cannot be recovered by the business i.e it is an irrecoverable debt.

### COMMON FORMULAS

i) **Turnover / sales** = Sales – Sales Return (Return Inwards)

Or

**Turn Over / sales** = Gross Profit + Cost of sales

Or

**Turnover / sales** =  $\frac{\text{Gross Profit}}{\text{Margin}}$

ii) **Goods available for sale** = Opening stock + Net purchases = Good available for sale. This is the sum (total) of opening stock and Net purchases of the business

iii) **Net purchase** = Purchases – Purchases Returns / return Outwards + Additional expenses on purchases (if any) e.g carriage Inwards (carriage on purchases), Wages, Taxes on purchases, Customs duty, etc

iv) **Cost Of sales.** This refers to the price or value at which goods sold by the business (sales) are purchased. It is also called Cost of Goods Sold or Sales at Cost. Thus:

**COST OF SALES** = (opening Stock + Net Purchases) – Closing stock

OR

**COST OF SALES** = sales (turn over) – Gross profit

Other formulae which can also be used to calculate the cost of sales

Thus;

**COST OF SALES** = Average stock X Rate of stock Turn over

Or

**COST OF SALES** =  $\frac{100-\text{margin}}{100} \times \text{sales (Turn Over)}$

v) **Gross Profit** = Net sales – Cost Of Sales

Or

**Gross Profit** = Margin X Net sales

Or

Markup X Cost of Sales

Or

**Gross profit** = Net profit + expenses

vi) **Closing stock** = Opening Stock + Net Purchases – Cost of sales

vii) **Opening stock** = cost of sales – Net Purchases

viii) **Net Profit** = Gross Profit – Expenses

ix) **Net Loss** = Expenses – Gross profit

### **DETERMINATION OF THE CAPITAL STRUCTURE OF THE BUSINESS**

**Capital.** This refers to the amount of resources invested or injected in the business. Or a claim by the owner against the business. Capital can be categorized into the following.

x) **Capital Owned / Owner's Equity / Net worth**

Two basic formulae for calculating owner's equity

a) **Capital Owned** = Total Assets – Total liabilities

b) **Capital Owned** = capital at start + Net Profit – Drawings + Additional capital (if any)

#### **Note.**

- ❖ Net worth of the business refers to the Net assets in the business. (ie Total Assets – Total Liabilities)
- ❖ Owner's equity represents the owner's claim on the business which is Net Worth of the business

xi) **Fixed capital.** This represents the value of resources invested in Fixed Assets  
**Fixed capital** = total fixed assets

xii) **Working capital / Net current Assets.** This is the excess of current Assets Over Current Liabilities

**Working Capital** = Current Assets – Current Liabilities

Note. When current Liabilities exceed Current Assets, the business is said to be deficient of working capital and the situation is referred to as deficiency

xiii) **Liquid capital.** This refers to the Assets which can easily and quickly be converted into cash ie quick assets. They cash at hand, cash at bank and debtors  
**Liquid funds** = cash at hand and cash at bank

xiv) **Capital employed**

Capital employed is used in two different ways

a) **Gross capital employed.** This refers to total assets of the business  
ie Fixed Assets + Current Assets

b) **Net capital employed.** This can be determined by the use of any of the two formulas below

❖ **Net Capital employed** = Fixed Assets + Working Capital

❖ **Net capital Employed** = capital owned + Borrowed capital

Note. For examination purposes, the term capital Employed will imply Net Capital Employed

xv) **Borrowed capital / loan capital.** This is the part of capital provided by long term liabilities like debentures, commercial mortgages and other long term loans from financial institutions

**Business sheet** .this is the statement which shows the financial position of the business after a given period of time

**Income statement/ trading account** .This is financial statement which is prepared to ascertain the amount of gross profit or gross loss and net profit or net loss made by the business after a given period of time.

## OTHER CALCULATIONS FROM THE BALANCE SHEET

### Determination of liquidity of a business

Liquidity of a business is the ability of a business to meet its current liabilities / debts using its current assets (the ability of a business to manage its working capital) it's determined by two major ratios below

- i) **Current ratio / working capital ratio**. This is the ratio of current assets to current liabilities  
I.e current assets: Current liabilities

It measures the ability of a business to pay off / meet its current liabilities / debts using its current assets

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

Note. A ratio of 2:1 is preferred by the business

Using the example above:

Current assets = shs 65,000

Current liabilities = shs 35,000

$$\text{Therefore current ratio} = \frac{65,000}{35,000} = 1.86: 1$$

This means that the business current assets can cover its current liabilities 1.86 times without any problems ie it's able to pay its current liabilities using its current assets with ease

- ii) **Quick ratio / liquidity ratio**.

This shows or measures the ability of a business to pay its immediate debts / liabilities using current assets that can easily be converted into cash

It's the ratio of quick assets to current liabilities

**Note: quick assets exclude stock**

$$\text{Quick / acid test / liquid ratio} = \frac{\text{current asset} - \text{closing stock}}{\text{current liabilities}}$$

$$\text{Or} = \frac{\text{Quick assets/liquid assets}}{\text{current liabilities}}$$

**Using example one to substitute into the formula**

$$\text{Quick ratio} = \frac{65,000 - 15,000}{35,000} = \frac{50,000}{35,000} = 1.43: 1$$

This implies that the firm has a capacity to pay its current debts 1.43 times using its most realizable / liquid assets

### Example 1

The following information trial balance was extracted from the books of JAK stationery shop as at 28 February 2017.

Details	Dr	Cr
Sale		128,000
Purchases	90,000	
Returns	6,000	5,000
Carriage inwards	10,000	
Opening stock	28,000	
Rent	4,000	
Advertising	8,000	
Premises	122,000	
Machinery	75,000	
Debtors	18,000	
Creditors		31,000
Bank loan		60,000
Cash at hand	14,000	
Cash at bank	27,000	
Drawing	10,000	
Discount allowed	5,000	
Discount received		6,000
Commission receivable		20,000
Capital		190,000
Carriage outwards	8,000	
Wages and salaries	15,000	
	440,000	440,000

Required: prepare income statement for JAK stationery shop for the year ended 28 feb 2017 and balance sheet as at 28 February 207

## JAK STATIONERY SHOP`S

### Income statement

For the year ended 28 February 2017

Particulars	Shs	Shs	Shs
Sale		128,000	
Less: sales return		6,000	122,000
Less cost of sales			
Opening stock		28,000	
Add: purchases	90,000		
Add : carriage	10,000		
Purchases before returns	100,000		
Less: purchase returns	5,000		
<b>NET PURCHASES</b>		<b>95,000</b>	
Goods available for sale		123,000	
Less: closing stock		48,000	
Cost of sales			75,000
<b>GROSS PROFIT</b>			<b>47,000</b>
Add: discount allowed		6,000	
Commission receivable		20,000	
Gross income			26,000
<b>LESS: OPERATING</b>			<b>73,000</b>
Rent	4,000		
Advertising	8,000		
Discount allowed	5,000		
Carriage outward	8,000		
Wages and salaries	15,000		
Total operating expenses			40,000
<b>NET PROFIT</b>			<b>33,000</b>



## JAK STATIONERY SHOP`S

Balance sheet

As at 28 February 2017

DETAILS	SHS	SHS	SHS
<b>FIXED</b>			
Premises		122,000	
Machinery		75,000	197,000
<b>Current assets</b>			
Stock	48,000		
Debtors	18,000		
Cash at bank	27,000		
Cash in hands	14,000	107,000	
<b>Less: current liabilities</b>			
Creditors		31,000	
Working capital			76,000
<b>CAPITAL EMPLOYED</b>			<b>273,000</b>
<b>FINANCED BY</b>			
Capital		190,000	
Add: net profit		33,000	
Less: drawings		10,000	227,000
Add :Bank loan			60,000
<b>NET CAPITAL EMPLOYED</b>			<b>273,000</b>

The following relates to the trial balance extracted from salt traders for the year ended 31 December 2015.

Particulars	Dr shs	Cr shs
Cash in hand	42,000	
Cash at bank	80,000	
Stock 1.1.2015	100,000	
Creditors		100,000
Returns inwards	15,000	
Sales		560,000
Purchases	315,000	
Salaries	40,000	
Water bills	6,000	
Postage	2,000	
Drawings	89,000	
Return outwards		10,000
Furniture	750,000	
Motor van	350,000	
Loan		300,000
Rent income		12,000
Carriage inwards	7,000	
Carriage outward	10,000	
Capital		824,000

Closing stock	13,500	
	<b>1,806,000</b>	<b>1,806,000</b>

**SALT TRADERS`**  
**INCOME STATEMENT**  
For the year ended 31 December 2015.

PARTICULARS	SHS	SHS	SHS
Sales			560,000
Less: returns inwards			15,000
<b>Net sales</b>			
<b>Less cost of sales</b>			545,000
Opening stock		100,000	
Add: purchases	315,000		
Add :carriage inwards	7,000		
Purchases before returns	322,000		
Less :returns outward	10,000		
<b>Net purchases</b>		312,000	
Goods available for sale		412,000	
Less closing stock		13,500	
<b>COST OF SALE</b>			398,500
<b>Gross profit</b>			
Add: rent income			146,500
<b>Gross income</b>			12,000
<b>LESS OPERATING COSTS</b>			
Salaries			158,500
Water bills		40,000	
Postage		6,000	
Carriage outwards		2,000	
Total expenses		10,000	
<b>NET PROFITS</b>			58,000
			100,500

**SALT TRADERS`**  
**Balance sheet**  
As at 31 December 2015

Details	shs	Shs	shs
<b>ASSETS</b>			
Fixed assets			
Furniture		750,000	
Motor van		350,000	1,100,000
<b>Current assets</b>			
Cash in hands	42,000		
Cash at bank	80,000		
Closing stock	13,500		

LESS: CURRENT LIABILITIES		135,500	
Creditors			
Working capital		100,000	35,500
CAPITAL EMPLOYED			<b>1,135,500</b>
<b>FINANCED BY:</b>			
Capital			
Add: net profit		824,000	
Capital before drawings		100,500	924,500
Less: drawings			89,000
Capital worth			
Add long term liabilities			835,500
			300,000
<b>NET WORTH</b>			<b>1,135,500</b>

## FINANCIAL RATIOS AND ANALYSIS

**A ratio** is a mathematical expression of one figure to another. Ratios enable comparison of one figure to another

**Ratio Analysis.** This is a technique used to come up with an opinion about the results of a business as reflected in the final accounts i.e in the trading profit and loss account (income statement) and the balance sheet

### THE PURPOSE OF FINANCIAL RATIOS

- ☞ To compare business performance over several financial periods
- ☞ To compare business performance with that of other businesses within the same industry
- ☞ To guide management in formulating /making future financial or investment plans and policies

### IMPORTANCE OF FINANCIAL RATIOS

- ☞ They help in comparison of a firm's performance over time I.e current and past accounting periods to tell whether the business is declining or doing well
- ☞ Ratios help to compare the growth and relative efficiency of a business with competitors in the same industry
- ☞ They provide a basis for making future business policies and plans to achieve the set goals
- ☞ Financial ratios also help investors in evaluating a business and its shares especially those selling shares to the public through stock exchange
- ☞ They are used by tax authorities to assess the amount of tax to be paid by different businesses
- ☞ They can be used by businesses to access credit facilities from lenders or by lenders to extend credits to clients or business

### RATIOS AND RATIO ANALYSIS

There are several types of ratios and each is designed to satisfy a particular aim of analysis

These include

- ✓ Profitability ratios
- ✓ Efficiency ratios

- ✓ Liquidity ratios
  - ✓ Leverage / solvency ratios
- They are explained as below:

### 1. Profitability ratios

These ratios determine the level of returns that a business man / an entrepreneur is getting on sales or capital that has been invested i.e they determine if the business was able to generate sufficient profits to justify its continuity in operation or not. They include.

- ✓ Gross profit margin
- ✓ Mark up
- ✓ Net profit margin
- ✓ Rate of return on capital

- i) **Gross profit margin/ ratio.** This refers to the Gross profit expressed as a percentage of the selling price or net sales / turn over i.e. percentage of gross profit to net sales

Or

The **gross profit margin** is the ratio of gross income or profit to sales. This ratio indicates how much of every shilling of sales is left after costs of goods sold

$$\text{Gross profit} = \frac{\text{Gross Profit}}{\text{Net Sales/turnover}} \times 100$$

Note: the higher the ratio the better.

It only makes sense that higher ratios are more favorable. Higher ratios mean the company is selling their inventory at a higher profit percentage.

High ratios can typically be achieved by buying inventory very cheap. If retailers can get a big [purchase discount](#) when they buy their inventory from the [manufacturer](#) or wholesaler, their gross margin will be higher because their costs are down

- ii) **Mark up.** It refers to Gross profit expressed as percentage of Cost of the goods / cost of sales or cost of goods sold. it is also called **Gross profit markup or Gross profit ratio.** i.e. that percentage by which cost price is increased to get the selling price of the goods.

$$\text{Markup} = \frac{\text{Gross Profit}}{\text{Cost of sales}} \times 100$$

Note: the higher this ratio the better

- iii) **Margin. (Gross profit margin)** this is gross profit expressed as a percentage of sale price (sales).

Thus

$$\text{Margin} = \frac{\text{Gross Profits}}{\text{Net Sales}} \times 100$$

- iv) **Net profit margin / ratio:** this is the expression of net profit as a percentage of net sales ie that percentage of net profit to net sales/turnover

$$\text{Net Profit Margin} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

Note: the higher this ratio the better

v) **.Rate of Return on capital.** It is twofold i.e. rate of return on capital invested and rate of return on capital employed

a) **Rate of return on capital invested.** this refers to net Profit expressed as a percentage of capital invested

$$\text{Rate of return on capital employed} = \frac{\text{Net Profit}}{\text{Capital Invested}} \times 100$$

b) **Rate of return on capital employed.** This refers to net profit expressed as a percentage of capital employed

$$\text{Rate of return on capital employed} = \frac{\text{Net Profit}}{\text{Capital Employed}} \times 100$$

### **The higher the rate of return the better the business**

**Note.** For examination purposes, rate of Return on Capital will imply rate of Return on capital invested

## **2. EFFICIENCY RATIOS / ACTIVITY RATIO**

Activity ratios are measures of how well assets are used. Activity ratios – which are, for the most part, turnover ratios -- can be used to evaluate the benefits produced by specific assets, such as inventory or accounts receivable. Or they can be used to evaluate the benefits produced by all a company's assets collectively. These measures help us gauge how effectively the company is at putting its investment to work. A company will invest in assets – e.g., inventory or plant and equipment – and then use these assets to generate revenues. The greater the turnover, the more effectively the company is at producing a benefit from its investment in assets.

The most common turnover ratios are the following:

- **Rate of stock turn over.** It refers to the number of times average stock is sold and replaced in a given period of time. i.e. measures the speed at which stocks are turned into sales. It includes the number of times in year the average stock can be sold off.
  - The higher the rate of stock turn over, the more efficient the business is and doing well

$$\text{Rate of stock turn at cost} = \frac{\text{Cost of sales}}{\text{Average stock at cost}}$$

Or

$$\text{Rate of stock turn at selling price} = \frac{\text{turnover/netsales}}{\text{Average stock at selling price}}$$

Note: the standard units for stock is times

**But average stock** (refers to the average of opening stock and closing stock)

$$\text{Average stock.} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

Or

$$\text{Average stock} = \frac{\text{cost of sales}}{\text{rate of stock turn}}$$

Stock may be valued at cost price or market price / selling price

- a) Average stock at cost price =  $\frac{100 - \text{Margin}}{100} \times \text{Average stock at selling price}$   
 b) Average stock at selling price =  $\frac{100}{100 - \text{Markup}} \times \text{Average stock at cost price}$

**Note:**

- i) If the question is silent about the price at which stock is valued then assume average stock at cost  
 ii) Stock taking is the exercise involving the physical counting and assigning of monetary value to stock so as to determine the value of stock at any given point in time.  
 c) Cost of sales = rate of stock turn X average stock at cost price  
 d) Turnover = Rate of stock turn X average stock at selling price.

**Measures employed to increase the rate of turn over**

- ✓ Reducing prices of goods
  - ✓ Intensive advertising
  - ✓ Offering credit facilities to credit worthy customers
  - ✓ Offering free gifts and sample to customers
  - ✓ Employing loss leader policy
  - ✓ Using installment selling method
- **Stock turn over period.** This measures the average number of days stock is held before selling it during a given period. i.e it shows the length of time taken to convert stock into sales.

**Note.** The shorter the period, the better

**Stock turn over period** =  $\frac{\text{Average stock}}{\text{cost of sales}} \times \text{number of days in a year (366/365) days}$   
 Or stock turnover period / average number of days stock was held =  $\frac{\text{Days in a year}}{\text{Stock turnover}}$

Or **Stock turn over period** =  $\frac{\text{Average stock}}{\text{cost of sales}} \times \text{number of weeks in a year (52 wks)}$

Or **Stock turn over period** =  $\frac{\text{Average stock}}{\text{cost of sales}} \times \text{number of months in a year (12 months)}$

- **Rate of debtor's turn over.** This ratio shows the number of times cash collections are made from debtors in a given period of time.

Rate of debtor's turnover =  $\frac{\text{Net sales/turnover}}{\text{total debtors}}$

- **Debtors turn over period / Average collections period.** This shows how long it takes a firm before cash is collected from debtors. It shows the length of time credit is extended to the debtors.

**The shorter this period, the better**

**Debtors turn over period** =  $\frac{\text{Total debtors}}{\text{net sales / turnover}} \times \text{Number of days in a year (366/365)}$

Or

**Debtors turn over period** =  $\frac{\text{total debtors}}{\text{net sales/turnover}} \times \text{number of weeks in a year (52 wks)}$

Or

**Debtors turn over period** =  $\frac{\text{total debtors}}{\text{netsales/turnover}} \times \text{number of months in a year (12 months)}$

**Rate of creditors' turn over.** It measures the number of times firm can pay its suppliers in a given period of time.

$$\text{Rate of creditors' turn over} = \frac{\text{Net purchases}}{\text{Total creditors}}$$

**Creditors turn over period or average credit / payment.** It measures the period it takes a firm to pay its creditors / suppliers

Note. The shorter this period the better

$$\text{Creditors' turn over} = \frac{\text{Total creditors}}{\text{Net purchases}} \times \text{Number of days in a year}$$

**Assets turn over.** This is concerned with how the firm's capacity is used to generate returns. It includes

**Fixed asset turnover.** It shows how the fixed assets capacity is used to generate or contribute to revenue.

$$\text{Fixed assets turnover} = \frac{\text{net sales}}{\text{fixed assets}}$$

**Expense turnover ratio /percentage of expense turnover.** Refers to the ratio / percentage of expenses to net sales / turn over.

$$\text{Rate / percentage of expenses to turnover} = \frac{\text{Total expenses}}{\text{Net sales}} \times 100$$

**Note: the lower the ratio / percentage, the better**

**Or Economy on expense ratio.** This is total expenses expressed as a percentage of turnover. It shows how economical a businessman was in his expenses. The lower, the better

$$\text{Economy on expense ratio} = \frac{\text{total expenses}}{\text{turnover}} \times 100$$

### 3. liquidity ratio

These measure the ability of a firm to pay off its debts/ current liabilities that fall due in the next 12 months using its current assets (assets easily convertible into cash in 12 months)

i) **Current ratio / working capital ratio.** This is the ratio of current assets to current liabilities of the business.

It measures the ability of a business to pay off / meet its current liabilities / debts using its current assets

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

It has been recommended that a ratio of 2:1 is good for a business although it can be argued that, the most ideal ratio is the one, which takes into account the nature of the business and conditions in which it is operating other than using a rule of thumb to fix the ratio.

## ii) Quick ratio / liquidity ratio.

This shows or measures the ability of a business to pay its immediate debts / liabilities using current assets that can easily be converted into cash (liquid assets)

It's the ratio of quick assets to current liabilities

**Note: quick assets exclude stock**

$$\text{Quick / acid test / liquid ratio} = \frac{\text{current asset-closing stock}}{\text{current liabilities}}$$

$$\text{Or} = \frac{\text{Quick assets/liquid assets}}{\text{current liabilities}}$$

Note. In this case, stock is ignored because it may take a longer time before customers can buy. Also those who buy may do it on credit hence jeopardizing/ risking the business' liquidity because cash is to be collected after some time.

For example, spear motors with Mercedes Benz cars as their current assets (inventory) would find it extremely hard to convert them into liquid assets at a short notice. It cannot, therefore, be concluded that such a firm can meet its current obligations with reasonable ease given such items. (of inventory) which are not easily converted into cash.

The amount and nature of debtors of a firm also have to be analysed to ensure the firms' ability depend on the current assets to pay its current obligations. The value is for debtors may be very high and yet if a bigger proportion of them are likely to be bad, or slow paying, then the firm will still have liquidity problems.

## 4. Leverage / solvency ratios

These measure the ability of a firm to meet its long term obligation / debts and hence be able to survive in the long run.

Financial leverage ratios are used to assess how much financial risk the company has taken on. There are two types of financial leverage ratios: component percentages and coverage ratios. Component percentages compare a company's debt with either its total capital (debt plus equity) or its equity capital. Coverage ratios reflect a company's ability to satisfy fixed obligations, such as interest, principal repayment, or lease payments.

i) **Debt to equity ratio.** It shows the extent to which borrowed funds can be covered by the owner's funds

**Or**

indicates the relative uses of debt and equity as sources of capital to finance the company's assets, evaluated using book values of the capital sources:

$$\text{Debt to equity ratio} = \frac{\text{Long term debts/liabilities}}{\text{Total equity/capital owned}}$$

$$\text{Or debt to equity ratio} = \frac{\text{Long term debts/liabilities}}{\text{Total equity/capital owned}} \times 100$$



- ii) **Debt to total asset ratio.** It measures the extent to which the firm's assets were financed by borrowed funds or indicates the proportion of the company's assets that are financed with long-term debt.

$$\text{Debt to total assets ratio} = \frac{\text{Long term debt/liabilities}}{\text{Total assets}}$$

Remember from your study of accounting that total assets are equal to the sum of total debt and equity. This is the familiar **accounting identity**:  
 assets = liabilities + equity

- iii) **Coverage ratios.** In addition to the leverage ratios that use information about how debt is related to either assets or equity, there are a number of financial leverage ratios that capture the ability of the company to satisfy its debt obligations. There are many ratios that accomplish this, but the two most common ratios are the times interest coverage ratio and the fixed charge coverage ratio.

- i) The times-interest-coverage ratio, also referred to as the interest coverage ratio, compares the earnings available to meet the interest obligation with the interest obligation

$$\text{Interest cover ratio} = \frac{\text{profit before interest and taxes}}{\text{total interest}}$$

The fixed charge coverage ratio expands on the obligations covered and can be specified to include any fixed charges, such as lease payments and preferred dividends. For example, to gauge a company's ability to cover its interest and lease payments, you could use the following ratio:

$$\text{Fixed charge coverage ratio} = \frac{\text{profit before interest and taxes} + \text{lease payment}}{\text{interest} + \text{lease payment}}$$

## VALUATION AND GROWTH RATIOS

### 1. Earnings per Share

EPS shows the rate of earnings per share of common stock. A preferred dividend is deducted from net income to get the earnings available to common stockholders. It's given by

$$\text{Earnings per Share} = \frac{\text{net income} - \text{preferred dividends}}{\text{average common shares}}$$

### 2. Price-Earnings Ratio

It's used to evaluate if a stock is over- or under-priced. A relatively *low P/E ratio* could indicate that the company is under-priced. Conversely, investors expect high growth rate from companies with *high P/E ratio*. It's given by

$$\text{Price-Earnings Ratio} = \frac{\text{market price per share}}{\text{Earning per share}}$$

### 3. Dividend Pay-out Ratio

It determines the portion of net income that is distributed to owners. Not all income is distributed since a significant portion is retained for the next year's operations.

$$\text{Dividend Pay-out Ratio} = \frac{\text{dividend per share}}{\text{Earning per share}}$$

#### 4. Dividend Yield Ratio

Measures the percentage of return through dividends when compared to the price paid for the stock. A high yield is attractive to investors who are after dividends rather than long-term capital appreciation. It's given by

$$\text{Dividend Yield Ratio} = \frac{\text{dividend per share}}{\text{market per share}}$$

### BUSINESS CALCULATION EXAMINABLE QUESTIONS

Let's try this together

#### 1. Given the following information

Opening stock	shs	12,000,000
Purchases	shs	8,000,000
Returns inwards	shs	28,000
Returns outwards	shs	32,000
Stock at close	shs	20,000,000
Rent	shs	30,000
Salaries	shs	100,000
Electricity	shs	20,000
Repairs	shs	10,000
Transport	shs	10,000

**From the above information calculate the following:**

- Net purchase
- Goods available for sale
- Cost of sales
- Average stock
- Rate of stock turnover
- Gross profit
- Net profit
- Gross profit margin / Gross profit ratio
- Net profit margin / net profit ratio / net margin ratio

#### Solutions

i) **Net purchases** = Total purchases – purchases returns (return outwards)  
= 8,000,000 – 32,000  
Net purchases = shs 7,968,000

ii) **Goods available for sale** = Opening stock + Net Purchases  
12,000,000 + 7,968,000  
Goods available for sale = shs 19,968,000

iii) **Cost of sales** = (opening Stock + Net Purchases) – Closing stock  
= (12,000,000 + 7,968,000) – 200,000  
= 19,968,000 – 200,000  
**Cost of sales** = shs 19,768,000

iv) **Average stock** =  $\frac{\text{opening stock} + \text{closing stock}}{2}$   
=  $\frac{12,000,000 + 200,000}{2}$  = shs 6,100,000

$$v) \text{ Rate of stock turn} = \frac{\text{Cost of sales}}{\text{Average stock at cost}} = \frac{19,768,000}{6,100,000}$$

Rate of stock turn = 3.2 times or approx. 3times

**Interpretation.** The business turned its stock into sales approximately 3 times during the trading year.

xvi) Gross profits = Net sales – Cost Of Sales

**But Net sales** = Total Sales – Sales Return (Return Inwards)

$$= 20,000,000 - 28,000 = \text{shs } 19,972,000$$

Gross Profits = 19,972,000 – 19,768,000

Gross Profit = shs 204,000

xvii) Net profit = Gross Profit – Operating Expenses

But operating expenses = (salaries + rent + electricity + repair + transport)

$$= 100,000 + 30,000 + 20,000 + 10,000 + 20,000$$

$$= \text{shs } 180,000$$

Net profit = 204,000 – 180,000

$$= \text{shs } 24,000$$

xviii) Mark Up =  $\frac{\text{Gross Profit}}{\text{Cost of sales}} \times 100 = \frac{204,000}{19,768,000} \times 100 = 1.03\%$

**Interpretation.** The business adds 1.03% on the cost price of a product to determine the selling price.

xix) Margin / Gross Profit ratio =  $\frac{\text{Gross Profits}}{\text{Net Sales}} \times 100 = \frac{204,000}{19,972,000} \times 100$

Margin = 1.02%

Interpretation. For every shs 100 of net sale, the business earned approximately shs 1 as net sales in the trading period

## WORKED EXAMPLES

The following financial statements relates to melon enterprises LTD

### MELON ENTERPRISES LTD

Income statement for the year ended 30 June 2017

	Shs
Sales	850,000,000
Less cost of sales	610,000,000
<b>Gross profit</b>	<b>240,000,000</b>
Less operating expenses	
Administrative costs	72,000,000
Selling and distribution costs	50,000,000
Other costs	18,000,000
Total costs	140,000,000
Profits before tax	100,000,000
Less taxation 30%	30,000,000
<b>Profit after tax</b>	<b>70,000,000</b>

## MELON ENTERPRISES LTD

### Balance sheet

As at 30 June 20117

NET FIXED	SHS
Motor vehicles	120,500,000
Land and premises	100,000,000
Furniture and fittings	80,400,000
Equipment	60,100,000
<b>Total fixed assets</b>	<b>361,000,000</b>
Current assets	
Inventory	35,500,000
Debtors	64,900,000
Prepayments	6,200,000
Bank	45,400,000
Total current assets	152,000,000
<b>Total assets</b>	<b>513,000,000</b>
Capital and liabilities	
Capital	
Owner`s equity	200,500,000
Liabilities	
5year loan	130,000,000
Creditors	152,500,000
Unpaid taxes	30,000,000
<b>Total capital and liabilities</b>	<b>513,000,000</b>

### Required;

- Compute the following ratios
- Gross profit margin
- Net profit margin
- Profit on total asset ratio
- Current ratio
- Acid test ratio
- Fixed asset turn over
- Debtor`s turnover

The enterprise apply for loan of shs 40,000,000 repayable within six month  
Should the bank give given the current ratio?

### SOLUTION

$$\text{Gross profit margin} = \frac{\text{gross profit}}{\text{net sales}} \times 100 = \frac{240,000,000}{850,000,000} = 28.24\% \text{ or } 28\%$$

$$\text{Net profit margin} = \frac{\text{net profit}}{\text{net sale}} \times 100 = \frac{70,000,000}{850,000,000} = 8.24\% \text{ or } 8\%$$

$$\text{Profit on total asset ratio} = \frac{\text{net profits}}{\text{total assets}} = \frac{70,000,000}{513,000,000} = 70:513 \text{ or } 0.14:1$$

Or

$$\text{Profit on total assets ratio} = \frac{\text{net profit}}{\text{total assets}} \times 100 = \frac{70,000,000}{513,000,000} \times 100 = 13.64\% \text{ or } 14\%$$

$$\text{Current ratio} = \frac{\text{current assets}}{\text{current liabilities}}$$

But current liabilities = creditors + unpaid tax  
 = 152,500,000 + 30,000,000 = 182,500,000

Therefore current ratio =  $\frac{152,000,000}{182,500,000} = 0.83:1$

Or

Current ratio =  $\frac{\text{current assets}}{\text{current liabilities}} \times 100 = \frac{152,000,000}{182,500,000} \times 100 = 83\%$

Acid test ratio =  $\frac{\text{current assets} - \text{inventory}}{\text{current liabilities}} = \frac{152,000,000 - 35,500,000}{182,500,000} = \frac{116,500,000}{182,500,000} = 0.6:1$

Or

Acid test ratio =  $\frac{\text{current asset} - \text{inventory}}{\text{current liabilities}} \times 100 = \frac{152,000,000 - 35,500,000}{182,500,000} \times 100$

$\frac{116,500,000}{182,500,000} \times 100 = 64\%$

Fixed asset turn over =  $\frac{\text{net sales}}{\text{fixed assets}} \times 100 = \frac{850,000,000}{361,000,000} \times 100 = 235.46\%$

Or

Fixed asset turn over =  $\frac{\text{net sales}}{\text{fixed assets}} = \frac{850,000,000}{361,000,000} = 2.35:1$

Debtors turn over =  $\frac{\text{net sales}}{\text{debtors}} \times 100 = 1309.7\%$

Or

Debtors turn over =  $\frac{\text{net sales}}{\text{debtors}} = \frac{850,000,000}{361,000,000} = 13.1:1$

The Bank should reject the loan application

The reason is that the business's current assets are less than the current liabilities

Or

The current asset ratio is below the standard ratio of 2:1

## EXAMPLE 2

The following balance was extracted from the final statements of JAK'S business at the end of the 2015

	Shs
Sales	288,000,000
Total fixed assets	65,500,000
Average debtors	90,000,000
Opening stock	40,200,000
Closing stock	50,400,000
Cost of sales	201,600,000
Total current assets	36,100,000
Equity capital	68,400,000
Total current liabilities	16,800,000
Net profit before interest and tax	40,600,000
Long term liabilities	38,500,000
Interest expenses for the year	5,700,000

## Required;

- Compute the following ratios
- Gross profit margin
- Stock turn over
- Debtor's collection days
- Leverage ratio
- Working capital ratio
- Net profit margin
- Interest cover

## SOLUTION

$$\text{Gross profit margin} = \frac{\text{gross profit}}{\text{Net sales}} \times 100$$

$$\text{But gross profit} = \text{Net sales} - \text{cost of sales}$$
$$\text{Shs } 288,000,000 - 201,600,000 = 86,400,000 = \frac{86,400,000}{288,000,000} = 30\%$$

$$\text{Stock turn over} = \frac{\text{cost of sales}}{\text{average stock}}$$

$$\text{But average cost} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

$$\frac{40,200,000 + 50,400,000}{2} = 45,300,000 = \frac{201,600,000}{45,300,000} = 4.45 \text{ times}$$

$$\text{Debtors collection days} = \frac{\text{average debtors} \times \text{number of days in a year}}{\text{sales}} = \frac{90,000,000}{288,000,000} \times 365 \text{ days} = 114 \text{ days}$$

$$\text{Leverage ratio} = \frac{\text{debt}}{\text{equity}} \times 100 = \frac{38,500,000}{68,400,000} \times 100 = 56.3\%$$

$$\text{Interest cover} = \frac{\text{net profit before interest and tax}}{\text{interest expenses}} = \frac{40,600,000}{5,700,000} = 7.12 \text{ times}$$

$$\text{Working capital ratio} = \frac{\text{current assets}}{\text{current liabilities}} = \frac{36,100,000}{16,800,000} = 2.15:1$$

$$\text{Net profit margin} = \frac{\text{Net profit after tax and interest}}{\text{Net sales}} \times 100 = \frac{40,600,000 - 5,700,000}{288,000,000} \times 100$$
$$\frac{34,900,000}{288,000,000} \times 100 = 12.11\%$$

### Example 3

The following balances were extracted from BAM SHOPPING's books of account on 31 12 2017

<b>PARTICULARS</b>	<b>SHS</b>
Net sales	20,000,000
Net purchases	11,000,000
Goods available for sale	16,000,000
Stock on 1. Jan 2017	5,000,000
Stock on 31 Dec 2017	4,000,000
Total operating expenses	6,000,000

Total fixed assets	8,000,000
Debtors	1,500,000
Creditors	3,000,000
Cash	900,000
Outstanding rent	1,000,000
Bank	1,600,000

Required

Calculate and interpret the following ratios

- Inventory turnover ratio
- Credit payment period
- Rate of return on capital employed
- Stock turnover period
- Cash ratio
- Profit mark up

### Solution

$$\text{Inventory turnover} = \frac{\text{cost of sales}}{\text{average stock}}$$

$$\text{But cost of sales} = \text{goods available for sale} - \text{closing stock}$$

$$\frac{16,000,000 - 4,000,000}{5,000,000 + 4,000,000/2}$$

$$\frac{12,000,000}{4,500,000} = 2.3 \text{ or } 3 \text{ times}$$

Interpretation the business sells and replaces its stock 3 times in the trading period

$$\text{ii) Credit payment period} = \frac{\text{creditors}}{\text{net purchases}} \times \text{number of days in a year}$$

$$\frac{3,000,000}{11,000,000} \times 365 \text{ days} = 99.5 \text{ days}$$

Interpretation on average the business takes 100 days to pay its creditors

$$\text{iii) Rate of returns on capital employed} = \frac{\text{Net profits}}{\text{employed capital}} \times 100$$

But net profit = (net sales - cost of sales) - expenses

$$\frac{(20,000,000 - 12,000,000) - 6,000,000}{8,000,000 + (8,000,000 - 4,000,000)} \times 100 = 16.7\%$$

Interpretation; for 100 shs of capital employed, the business gets shs 16.7 as net profits

$$\text{iv). Stock turn over period} = \frac{\text{avarage stock}}{\text{cost of sales}} \times \text{number of days in a year}$$

$$\frac{4,500,000}{12,000,000} \times 365 \text{ days} = 137 \text{ days}$$

Interpretation: the business holds stock for 137 days before its sold

$$\text{Cash ratio} = \frac{\text{abosute liquid assets}}{\text{current liabilities}} = \frac{\text{cash} + \text{Bank}}{\text{creditors} + \text{outstanding rent}} = \frac{\text{shs } 900,000 + 1,600,000}{3,000,000 + 1,000,000}$$

$$\frac{2,500,000}{4,000,000} = 0.625:1$$

Interpretation: the business can clear 0.6 of its current liabilities using its absolute liquid assets

$$v) \text{ Profit margin} = \frac{\text{gross profit}}{\text{cost of sales}} \times 100 = \frac{8,000,000}{12,000,000} \times 100 = 66.6\% \text{ or } 67\%$$

Interpretation: for every shs 100 of cost of sales the business generates shs 67 as gross profits

The following information was extracted from the records of Promela traders for the period ended 31/12/2016.

	Shs
Inventory 01/012016	6,000,000
Inventory 31/12/2016	5,000,000
Inventory turnover ratio	3times
Turnover	30,500,000
Net profit ratio	20%
Delivery van	1,800,000
Fixtures and fittings	1,000,000
Debtors	1,650,000
Creditors	2,500,000
Insurance due	1,500,000
Equipment	250,000
Bank balance	750,000
Cash balance	600,000

Required to  
Calculate

- a) Cost of sales
  - b) Net purchases
  - c) Goods available for sale
  - d) Total operating expenses
- b) Compute and interpret
    - a) Current ratio
    - b) Quick asset ratio
    - c) Credit collection period in weeks
    - d) Fixed asset turnover ratio

Solution

$$a) \text{ Cost of sales} = \text{stock turn over} \times \text{average stock}$$

$$\text{But average stock} = \frac{\text{opening stock} + \text{closing stock}}{2} = \frac{6,000,000 + 5,000,000}{2} = \text{shs } 5,500,000$$

$$\text{Hence cost of sales} = 3 \times 5,500,000 = \text{shs } 16,500,000$$

$$ii) \text{ Net purchases} = \text{cost of sales} + \text{closing stock} - \text{opening stock}$$

$$= \text{shs } 16,500,000 + 5,000,000 - 6,000,000$$

$$= \text{shs } 21,500,000 - 6,000,000 = \text{Shs } 15,500,000$$

$$iii) \text{ Goods available for sale} = \text{opening inventory} + \text{net purchases}$$



6,000,000+15,500,000 = Shs 21,500,000

iv) Total operating expenses = gross profit – net profit.

But gross profit = turn over – cost of sales = shs 30,500,000 – 16,500,000 = shs 14,000,000

Also net profit = net profit ratio x turn over =  $\frac{20}{100} \times 30,500,000 = \text{shs } 6,100,000$

Hence total operating expenses = 14,000,000 – 6,100,000 = **shs 7,900,000**

Current ratio =  $\frac{\text{total current assets}}{\text{total current liabilities}}$

but current assets = stock + debtors + Bank balance + cash balance

Shs 5,000,000 + 1,650,000 + 750,000 = 8,000,000

Also current liabilities = creditors + insurance due

2,500,000 + 1,500,000 = Shs 4,000,000

Current ratio =  $\frac{8,000,000}{4,000,000} = 2:1$

Interpretation: the business is in position to pay its current liabilities 2 times using its current assets

Quick ratio =  $\frac{\text{current assets} - \text{closing inventory}}{\text{current liabilities}} = \frac{8,000,000 - 5,000,000}{4,000,000} = \frac{3,000,000}{4,000,000}$

3:4 or 0.75: 1

Interpretation: the business does not have enough quick assets to clear its current liabilities since the ratio is below the standard ratio

### Credit collection period in weeks

Fixed asset turnover ratio =  $\frac{\text{net sales}}{\text{fixed assets}} = \frac{30,500,000}{3,050,000} = 10:1$

Interpretation: for every 1 shs invested in business it generates shs 10 as sales revenue

The following balances were extracted from MUKENE'S books of accounts on 31/12/2015.

	Shs (000)
Net sales	20,000
Net purchases	11,000
Goods available for sale	16,000
Stock (01.01.2015)	5,000
Stock (31.12.2015)	4,000
Total operating expenses	6,000
Total fixed assets	8,000

Debtors	1,500
Creditors	3,000
Cash	900
Accrued rent	1,000
Bank	1,600

**Required:**

Calculate and interpret

- i. Inventory turnover ratio
- ii. Credit payment period
- iii. Rate of return on employed capital
- iv. Stock turnover period
- v. Cash ratio
- vi. Profit mark – up

**SOLUTION**

Inventory turnover (ratio)/Rate of stock turn/ stock turnover

$$= \frac{\text{cost of sales}}{\text{Average stock}}$$

Average stock

$$\text{Cost of sales} = \text{Goods available for sale} - \text{Closing stock}$$

$$= 16,000,000 - 4,000,000 = \text{Shs } 12,000,000$$

$$\text{Average stock} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

$$= \frac{5,000,000 + 4,000,000}{2} = \text{Shs } 4,500,000$$

$$\begin{aligned} \text{Inventory turnover ratio} &= \frac{12,000,000}{4,500,000} \\ &= 2.7 \\ &= 3 \text{ times / turns} \end{aligned}$$

Interpretation: The business sells and replaces its stock approximately 3 times in a trading period.

(ii) Credit payment period =  $\frac{\text{creditors}}{\text{Net purchases}} \times \text{Number of days / weeks/ months in a year}$

Net purchases

$$= \frac{\text{creditors}}{\text{Net purchases}} \times \text{Number of days in a year}$$

$$= \frac{3,000,000}{11,000,000} \times 365$$

$$\begin{aligned} &= 99.5 \\ &= 100 \text{ days} \end{aligned}$$

Interpretation: On average the business takes 100 days to pay its creditors suppliers

(iii) Rate of return on employed capital

$$= \frac{\text{Net profit}}{\text{Employed capital}} \times 100$$

Net profit = Gross profit – Total operating expenses  
 = Net sales – Cost of sales) – 6,000,000  
 = (20,000,000 – 12,000,000) – 6,000,000  
 = 8,000,000 – 6,000,000  
 = Shs 2,000,000

Employed capital = Total fixed assets / fixed assets + working capital  
 But working capital = Total current assets – Total current liabilities.  
 Total current assets = Closing stock = Debtors = Cash + Bank  
 = 3,000,000 = 1,000,000  
 = shs 4,000,000  
 Working capital = 8,000,000 – 4,000,000  
 = shs4, 000,000

Employed capital = 8,000,000 + 4,000,000  
 Shs 12,000,000

Rate of return on employed capital =  $\frac{2,000,000}{12,000,000} \times 100$

16.7%

***KK LTD***  
***TRADING, PROFIT AND LOSS ACCOUNT***  
***FOR THE PERIOD ENDED 31<sup>ST</sup> DEC 2002***

Particulars	Shs	Shs	Particulars	shs	shs
Opening stock		200,000	Sales	1,010,000	
Add: Purchases	700,000		Less		
Add: carriage in	5,000		sales returns	10,000	
	705,000		Net sales		1,000,000
Less: purchases returns	20,000				
Net Purchases		<b>685,000</b>			
Goods available for sale		885,000			
Less closing stock		190,000			
Cost of sales		<b>695,000</b>			
Gross profits c/d		305,000			
		<b>1,000,000</b>			<b>1,000,000</b>
<u>Operating expenses</u>			Gross profits		
Carriage outwards		80,000	b/d		305,000
Interest		10,000			
Advertising		17,000			
Wages		73,000			
depreciation		5,000			
Miscellaneous expenses		20,000			
Net profits		<b>100,000</b>			
		305,000			305,000

**KK LTD**  
**BALANCE SHEET**  
**AS AT 31<sup>ST</sup> DEC 2002**

LIABILITIES	Shs	ASSETS	shs
Capital	1,210,000	<u>Fixed assets</u>	
Add: Net profit	100,000	Land	800,000
Less: drawings	10,000	Furniture	300,000
<b>Owner's equity</b>	<b>1,300,000</b>	Total fixed assets	1,100,000
<b><u>Long-term liabilities</u></b>	20,000	<b><u>Current assets</u></b>	
Bank loan		Stock	190,000
		Debtors	92,000
<b><u>Current liabilities</u></b>	100,000	Less provision for bad debts	2,000
Creditors		Cash at bank	30,000
		Prepayment	10,000
	<b>1,420,000</b>		<b>1,420,000</b>

Using the above information  
Determine and interpret the following

- i) Gross profit margin
- ii) Net profit margin
- iii) Rate of stock turn
- iv) Average debt collection / debtors days
- v) Average payment period / creditors days
- vi) Economy of expense ratio
- vii) Current ratio
- viii) Quick ratio
- ix) Leverage / debt equity ratio
- x) Return on equity

Solution

$$\begin{aligned} \text{i) Gross profit margin} &= \frac{\text{Gross profit}}{\text{Net sales}} \times 100 \\ &= \frac{305,000}{1,000,000} \times 100 = 30.5\% \end{aligned}$$

**Interpretation.** For every shs 100 of sales made, approximately shs 31 was gross profit

$$\text{ii) Net profit margin} = \frac{\text{Net Profit}}{\text{Net sales}} \times 100 = \frac{100,000}{1,000,000} \times 100 = 10\%$$

**Interpretation.** For every shs 100 of sales made, shs 10 was net profit

$$\text{iii) Rate of stock turn} = \frac{\text{Cost of sales}}{\text{Average stock}}$$

$$\text{But average stock} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

$$\text{Average stock} = \frac{200,000 + 190,000}{2} = \text{shs } 195,000$$

$$\text{Therefore rate of stock turn} = \frac{695,000}{195,000} = 3.56 \text{ times}$$

**Interpretation.** The business replaced its stock approximately 4 times in the trading period indicating low business / selling rate

$$\text{iv) Average debt collection period} = \frac{\text{Total debtors}}{\text{Net sales}} \times 365 \text{ days}$$

$$= \frac{90,000}{1,000,000} \times 365 \text{ days} = 32.85 \text{ days}$$

Interpretation. The business only allowed approximately 33 days for its debtors to pay up the debts, indicating an effective debt management

$$\begin{aligned} \text{v) Average payment period / creditors days} &= \frac{\text{Total creditors}}{\text{Net purchases}} \times 365 \text{ days} \\ &= \frac{100,000}{685,000} \times 365 \text{ days} = 53.28 \text{ days} \end{aligned}$$

**Interpretation .** Creditors are paid after an average of 53 days indicating a delayed payment

$$\text{vi) Economy of expense ratio. } \frac{\text{Total Expenses}}{\text{Turnover/sales}} \times 100 = \frac{205,000}{1,000,000} \times 100$$

Economy of expense ratio = 20.5%

**Interpretation.** For every shs 100 of sale, shs 20.5 made was expenses

$$\text{vii) Current ratio / working capital ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{320,000}{100,000}$$

Current ratio = 3.2:1 or 3.2 times

Interpretation. The business is able to pay its current liabilities /debts approximately 3times using the current assets

$$\text{viii) Quick asset ratio /acid test ratio} = \frac{\text{current assets}-\text{closing stock}}{\text{current liabilities}}$$

$$= \frac{320,000-190,000}{100,000} = 1.3: 1$$

Interpretation. The business is capable of paying its current liabilities using its liquid resources 1.3 times

$$\text{ix) Debt equity ratio.} = \frac{\text{long term liabilities}}{\text{owner's equity}} \times 100$$

$$= \frac{20,000}{1,300,000} \times 100 = 1.54\%$$

Interpretation. For every shs 100 of net worth of the business, shs 1.54 was used to offset its long term liabilities

$$\begin{aligned} \text{x) . Debt to total asset ratio} &= \frac{\text{long tern debts}}{\text{total assets}} \times 100 \\ &= \frac{20,000}{1,420,000} \times 100 = 1.408\% \end{aligned}$$

Interpretation. The business greatly depends on its own funds than borrowed funds therefore can survive in long run ie it depends less on borrowed funds

$$\text{xi) Return on equity} = \frac{\text{Net profits}}{\text{Total equity}} \times 100 = \frac{100,000}{1,300,000} \times 100 = 7.69\%$$

Interpretation. For every shs 100 of equity, approximately shs 8 made was net profits. This is not satisfactory and the business is not profitable. Therefore, management should devise ways to increase this ratio

The following balances were extracted from the books of Kasodde and sons on 31<sup>st</sup>Dec, 2013.

Land	5,000,000
Closing stock	1,500,000
Buildings	3,000,000
Bank loan	2,000,000
Creditors	2,000,000
Debtors	1,000,000
Furniture	800,000
Equipments	200,000
Bank overdraft	1,000,000
Cash at bank	1,500,000
Cash in hand	2,000,000
Prepaid rent	500,000
Unpaid rent	500,000
Net profit	4,000,000
Drawings	1,000,000
Capital	7,000,000

You are required to calculate the following

- i. Owner's equity = capital + Net profit – Drawings
- ii. Current assets = stock + Debtors + cash at bank + cash in hand + prepaid rent
- iii. Current liabilities = Bank Overdraft + Creditors + unpaid rent
- iv. Fixed capital = Fixed assets (Land + Buildings + Equipment + furniture)
- v. Borrowed capital = total long term liabilities (Loan)
- vi. Circulating capital = current assets
- vii. Liquid funds = cash in bank + cash in hand
- viii. Capital employed = Total Fixed assets + working
- ix. Rate on return on capital employed =  $\frac{\text{Net profit}}{\text{capital employed}} \times 100$

### **Solution**

$$\text{Owner's equity} = (\text{capital} + \text{Net profit}) - \text{Drawing}$$

$$(7,000,000 + 4,000,000) - 1,000,000$$

$$\text{Owners equity} = \text{shs } 10,000,000$$

$$\text{Current assets} = \text{stock} + \text{Debtors} + \text{cash at bank} + \text{cash in hand} + \text{prepaid rent}$$

$$1,500,000 + 1,000,000 + 1,500,000 + 2,000,000 + 500,000$$

$$= \text{shs } 6,500,000$$

$$\text{Current liabilities} = \text{creditors} + \text{Bank Overdraft} + \text{unpaid rent}$$

$$2,000,000 + 1,000,000 + 500,000$$

$$\text{Current liabilities} = \text{shs } 3,500,000$$

$$\text{Fixed capital} = \text{Land} + \text{buildings} + \text{equipment} + \text{furniture}$$

$$= 5,000,000 + 3,000,000 + 200,000 + 800,000$$

$$\text{Fixed capital} = \text{shs } 9,000,000$$

$$\text{Working capital} = \text{current assets} - \text{Current liabilities}$$

$$\text{Shs } 6,500,000 - 3,500,000$$

$$\text{Working capital} = \text{shs } 3,000,000$$

Borrowed capital = Long term liabilities  
 = Bank loan

Borrowed capital = shs 2,000,000

Circulating capital = Total Current Assets

Stock + Debtors + Cash at Bank + Cash in Hand + Prepaid Rent

1,500,000 + 1,000,000 + 1,500,000 + 2,000,000 + 500,000

= shs 6,500,000

Liquid funds = cash at bank + cash in hand

1,500,000 + 2,000,000

Liquid funds = 3,500,000

Capital employed = Fixed assets + Working capital

Shs 9,000,000 + 3,000,000

Rate return on capital employed =  $\frac{\text{Net profit}}{\text{capital employed}} \times 100$

$\frac{4,000,000}{12,000,000} \times 100 = 33\%$

**REAL LTD**  
**TRADING, PROFIT OR LOSS ACCOUNT**  
**FOR THE YEAR ENDED 31/12/2007/2008**

Particulars	2007	2008
Sales	800,000	1,000,000
Less cost of sales	450,000	370,000
Gross profit	350,000	630,000
Add income/ gains	50,000	70,000
	400,000	700,000
Less expenses /loss		
Administrative expenses	150,000	200,000
Net profit	250,000	500,000

**REAL LTD**  
**BALANCE SHEET**  
**AS AT 31<sup>ST</sup>/DEC/2007/2008**

	2007	2008		2007	2008
Share capital	200,000	300,000	<b>Fixed assets</b>		
Profit	250,000	500,000	Buildings	400,000	400,000
Creditors	150,000	100,000	<b>Current assets</b>		
Bank loan	70,000	50,000	Stock	100,000	60,000
			Debtors	70,000	390,000
	670,000	850,000		570,000	850,000

Compute and interpret the following for the 2 years (2007 and 2008)

- i. Gross profit ratio
- ii. Rate of stock turn
- iii. Net profit ratio
- iv. Quick asset ratio

- v. Working capital ratio / current ratio
- vi. Rate of return on share capital employed
- vii. Markup
- viii. Debtors collection period
- ix. Number of days before stock was held before selling
- x. Debt to owner's equity (gearing ratio)
- xi. Fixed assets turnover

Solution

2007	2008
<p>Gross profit ratio = <math>\frac{\text{gross profit}}{\text{sales}} \times 100</math>  <math>\frac{350,000}{800,000} \times 100 = 44\%</math></p> <p>Interpretation. Out of every shs 100 of sales made there was profit of shs 44 in the year.</p>	<p>Gross profit ratio <math>\frac{\text{Gross Profit}}{\text{sales}} \times 100</math>  <math>\frac{630,000}{1,000,000} \times 100 = 63\%</math></p> <p>Interpretation: In 2008, the business made a gross profit of 63 from every 100 shs of revenue earned from sales.</p>
<p>Rate of stock turn = <math>\frac{\text{cost of sales}}{\text{average stock}}</math> (times)            But average stock = <math>\frac{\text{Opening stock} + \text{closing stock}}{2}</math>  <math>= \frac{200,000 + 100,000}{2}</math></p> <p>Average = shs 150,000            Rate of stock turn = <math>\frac{450,000}{150,000}</math> (times)            Rate of stock turn = 3 time</p> <p>Interpretation. The business sold and replaced its stock by 3 times</p>	<p>Rate of stock turn = <math>\frac{\text{Cost of sales}}{\text{average stock}}</math> (times)            But average stock = <math>\frac{\text{Opening stock} + \text{closing stock}}{2}</math>  <math>= \frac{100,000 + 60,000}{2}</math></p> <p>Average = shs 80,000            Rate of stock turn = <math>\frac{370,000}{80,000}</math> (times)            Rate of stock turn over = 4.62 times or 5 times</p> <p>Interpretation. The business sold and replaced its stock by 5 times.</p>
<p>Net profit ratio = <math>\frac{\text{Net profit}}{\text{sales}} \times 100</math>  <math>\frac{250,000}{800,000} \times 100 = 31\%</math></p> <p>Interpretation. For every shs 100 of revenue earned from sales, there was profit of shs 31.</p>	<p>Net profit ratio = <math>\frac{\text{Net profit}}{\text{sales}} \times 100</math>  <math>\frac{500,000}{1,000,000} \times 100 = 50\%</math></p> <p>Interpretation. For every shs 100 of revenue earned from sales, there was profit of shs 50.</p>



<p>Quick asset ratio = <math>\frac{\text{current assts} - \text{closing stock}}{\text{current liabilities}}</math></p> $\frac{\text{Stock} + \text{Debtors} - \text{closing stock}}{\text{creditors}}$ $\frac{100,000 + 70,000 - 100,000}{150,000} = 0.5:1$ <p>Interpretation: the business can pay off its current liabilities using quick assets by 0.5 times.</p>	<p>Quick asset ratio = <math>\frac{\text{current assts} - \text{closing stock}}{\text{current liabilities}}</math></p> $\frac{\text{Stock} + \text{Debtors} - \text{closing stock}}{\text{creditors}}$ $\frac{60,000 + 390,000 - 60,000}{100,000} = 3.9:1$ <p>Interpretation. The business can pay off its current liabilities using quick assets by 3.9 times.</p>
<p>2007</p>	<p>2008</p>
<p>Working capital ratio <math>\frac{\text{current assets}}{\text{current liabilities}}</math></p> $\frac{170,000}{150,000} = 1.13:1 \text{ or } 1:1$ <p>Interpretation. The business can pay off its debts or liabilities by 1 time using its current assets. However after clearing all the liabilities the business remains with no working capital.</p>	<p>Working capital ratio <math>\frac{\text{current assets}}{\text{current liabilities}}</math></p> $\frac{450,000}{100,000} = 4.5:1 \text{ or } 5:1$ <p>Interpretation: the business can pay its debts or liabilities by 5 times using current assets. Therefore the business has enough ability to clear all its debts.</p>
<p>Rate of return on share capital employed = <math>\frac{\text{Net profit}}{\text{capital employed}} \times 100</math></p> <p>But capital employed = fixed assets + working capital</p> <p>Fixed assets = shs 400,000</p> <p>Net profit = shs 250,000</p> <p>But working capital = Current assets - Current liabilities = 170,000 - 150,000</p> <p>Working capital = shs 20,000</p> <p>Capital employed = 400,000 + 20,000</p> <p>Capital employed = shs 420,000</p> <p>Rate on return on share capital employed = <math>\frac{250,000}{420,000} \times 100 = \text{shs } 59.6 \text{ or } 60\%</math></p> <p>Interpretation. For every shs 100 of share capital employed in the business, there was a net profit of shs 60.</p>	<p>Rate of return on share capital employed = <math>\frac{\text{Net profit}}{\text{capital employed}} \times 100</math></p> <p>But capital employed = fixed assets + working capital</p> <p>Fixed assets = shs 400,000</p> <p>Net profit = shs 500,000</p> <p>But working capital = Current assets - Current liabilities = 450,000 - 100,000</p> <p>Working capital = shs 350,000</p> <p>Capital employed = 400,000 + 350,000</p> <p>Capital employed = shs 750,000</p> <p>Rate on return on share capital employed = <math>\frac{500,000}{750,000} \times 100 = \text{shs } 66.6 \text{ or } 67\%</math></p> <p>Interpretation. For every shs 100 of share capital employed in the business, there was a net profit of shs 67.</p>
<p>Mark up = <math>\frac{\text{gross profit}}{\text{cost of sales}} \times 100</math></p> <p>Mark up = <math>\frac{350,000}{450,000} \times 100 = 77.7 \text{ or } 78\%</math></p>	<p>Mark up = <math>\frac{\text{gross profit}}{\text{cost of sales}} \times 100</math></p> <p>Mark up = <math>\frac{630,000}{370,000} \times 100 = 170\%</math></p>



<p>Interpretation. For every shs 100 of cost of sales made, approximately shs 78 is gross profits.</p>	<p>Interpretation. For every shs 100 of cost of sales, approximately shs 170 is gross profit.</p>
<p>Debt ratio = <math>\frac{\text{total long term liabilities}}{\text{total assets}} \times 100</math></p> $\frac{170,000}{570,000} \times 100 = 29.8 \text{ or } 30\%$ <p>Interpretation. 30% of the total value of assets is financed by outsiders in form of long term debts or loan.</p>	<p>Debt ratio = <math>\frac{\text{total long term liabilities}}{\text{total assets}} \times 100</math></p> $\frac{50,000}{850,000} \times 100 = 5.8 \text{ Or } 6\%$ <p>Interpretation. 6% of the total value of assets is financed by outsiders in form of long term debts or loans.</p>
<p>Creditors / creditors payment period in days</p> $= \frac{\text{total creditors}}{\text{net purchases}} \times \text{number of days in a year}$ $= \frac{150,000}{350,000} \times 365 \text{ days} = 156 \text{ days}$ <p>On average each creditor was paid after 156 days</p>	<p>Creditors / creditors payment period in days</p> $= \frac{\text{total creditors}}{\text{net purchases}} \times \text{number of days in a year}$ $= \frac{100,000}{360,000} \times 365 \text{ days} = 105 \text{ days}$ <p>On average each creditor was paid after 105days</p>
<p>Debtors collection period</p> $\frac{\text{total debtors}}{\text{net sale}} \times \text{number of days in a year}$ $= \frac{70,000}{800,000} \times 365 \text{ days} = 31.9 \text{ days} = 32\text{days}$ <p>On average each debtor paid after 32 days</p>	<p>Debtors collection period</p> $\frac{\text{total debtors}}{\text{net sale}} \times \text{number of days in a year}$ $= \frac{390,000}{1,000,000} \times 365 \text{ days} = 142.74 \text{ days} = 143 \text{ days}$ <p>On average each debtor paid after 143 days</p>
<p>Number of days a stock was held before selling (inventory turnover)</p> $\frac{\text{average stock}}{\text{net sale}} \times \text{number of days in a year}$ $\frac{150,000}{450,000} \times 366 \text{ days} = 122 \text{ days}$ <p>The stock is held in the business before being sold for approximately 122 days</p>	<p>Number of days a stock was held before selling (inventory turnover)</p> $\frac{\text{average stock}}{\text{net sale}} \times \text{number of days in a year}$ $\frac{180,000}{370,000} \times 366 \text{ days} = 178 \text{ days}$ <p>The stock is held in the business before being sold for approximately 178 days</p>



<p>Debt to owner's equity  <math display="block">\frac{\text{long term debt}}{\text{owner's equity}}</math> </p> <p>Owners' equity = Capital + Net profit            = 200,000 + 250,000            = 450,000  <math display="block">\frac{70,000}{450,000} \times 100 = 16\%</math> </p> <p>The business borrowed 16% of business funds while 84% is out</p>	<p>Debt to owner's equity  <math display="block">\frac{\text{long term debt}}{\text{owner's equity}}</math> </p> <p>Owners' equity = Capital + Net profit            = 300,000 + 600,000            = 900,000  <math display="block">\frac{50,000}{900,000} \times 100 = 5.5\% = 6\%</math> </p> <p>The business borrowed 6% of business funds while 94% is out</p>
<p>Fixed assets Turnover = <math>\frac{\text{net sales}}{\text{fixed assets}}</math></p> $\frac{800,000}{400,000} = 2:1$	<p>fixed assets Turnover = <math>\frac{\text{net sales}}{\text{fixed assets}}</math></p> $\frac{1,000,000}{400,000} = 2.5:1 = 3:1$

The following income statement relates to the business of Gaba Traders for the period ended 31<sup>st</sup>/December/2017.

**GABA TRADERS' INCOME STATEMENT  
FOR THE YEAR ENDED 31<sup>ST</sup> DEC. 2017**

Details	Amount (shs)	Amount (shs)	Amount (shs)
Sales			65,310,000
Less: cost of sales		3,120,000	
Opening stock	48,900,000		
Add: wages	3,993,000	52,893,000	
Goods available for sale		56,013,000	
Less: closing stock		3,276,000	
Cost of sales			52,737,000
Gross profit			12,573,000
Add: other incomes			
Commission		1,260,000	
Rent income		1,800,000	
Discount income		630,000	3,690,000
Gross income			16,263,000
Less: operating expenses			
Salaries		2,652,000	
Electricity and telephone		534,000	
Rates		1,080,000	
Discount allowed		366,000	
Total operating expenses			4,632,000
Net profit			11,631,000

Additional information

- i. Debtors as at 31/12/2017 shs 3,625,500
- ii. Creditors as at 31/12/2017 shs 3,912,000
- iii. Take a financial year to be 365 days

**Required**

Using the information provided above, compute and interpret each of the following ratios;

- a) Gross profit margin
- b) Gross profit mark – up
- c) Stock turnover
- d) Net profit to sales ratio
- e) Debtors to sales ratio
- f) Creditors to purchases ratio

**Either: Gross profit margin**  $\frac{\text{Gross profit}}{\text{sales}} \times 100 = \frac{\text{Shs } 12,573,000}{\text{Shs } 65,310,000} \times 100 = 19.25\% \text{ or } 19\%$

Interpretation: The business made or realized a gross profit of shs 19.25 or shs 19.25 or shs 19 out of every shs.100 of sales made or generated.

Or Gross profit margin =  $\frac{\text{Gross profit}}{\text{sales}} = \frac{\text{Shs } 12,573,000}{\text{Shs } 65,310,000} = 0.19:1 \text{ Or } 0.2:1$

Interpretation: For every one shilling of sales made, the business generated a gross profit of shs0.19 or shs 0.2

**b). Either: Gross profit markup** =  $\frac{\text{Gross profit}}{\text{Cost of sales}} \times 100$

=  $\frac{\text{Shs } 12,573,000}{\text{Shs } 52,737,000} \times 100 = 23.8\% \text{ or } 24\%$

Interpretation: For every shs 100 spent on cost of sales, the business generated a gross profit of shs23.8 or shs 24.

Or Gross profit markup =  $\frac{\text{Gross profit}}{\text{Cost of sales}} = \frac{\text{Shs } 12,573,000}{\text{Shs } 52,737,000} = 0.238 \text{ or } 0.24:1$

Interpretation: For every one shilling spent on cost of sales, the business generated a gross profit of shs 0.24

**c). Stock Turnover** =  $\frac{\text{Cost of sales}}{\text{Average stock}}$

where : Average stock =  $\frac{\text{Opening stock} + \text{closing stock}}{2} = \frac{\text{shs } 3,120,000 + \text{shs } 3,276,000}{2}$

=  $\frac{\text{shs } 6,396,000}{2} = \text{shs } 3,198,000$

Stock turnover =  $\frac{\text{Shs } 52,737,000}{\text{Shs } 3,198,000} = 16.49 \text{ times or } 16.5 \text{ times}$

Interpretation: The business sold and replaced its stock approximately 16 times during the year 2017.

**d). Either : Net profit to sales ratio =  $\frac{Net\ profit}{sales} \times 100$**

$$= \frac{shs\ 11,631,000}{shs\ 65,310,000} \times 100 = 17.8\% \text{ or } 18\%$$

Interpretation: For every shs 100 of sales made. The business generated /made/realized a net profit of shs 17.8 or shs 18.

Or Net profit sales ratio =  $\frac{Net\ profit}{sales} = \frac{shs\ 11,631,000}{shs\ 65,310,000} = 0.178:1 \text{ or } 0.18:1$

Interpretation: For every shs 100 of sales made. The business generated /made/realized a net profit of shs 0.178 or shs 0.18

**e). Debtor's to sales ratio =  $\frac{Debtors}{sales} \times 100 = \frac{shs\ 3,265,000}{shs\ 65,310,000} \times 100 = 5\%$**

Interpretation: Out of every shs 100 of total sales made by the business. Shs 5 are /were credit sales.

Or Debtors to sales ratio:  $\frac{Debtors}{sales} = \frac{shs\ 3,265,000}{shs\ 65,310,000} = 0.05:1$

Interpretation: Out of every shs 100 of total sales made by the business. Shs 0.05 are /were credit sales.

**f). Either Creditors to purchases ratio =  $\frac{Creditors}{Net\ purchases} \times 100$**

$$= \frac{shs\ 3,912,000}{shs\ 52,893,000} \times 100 = 7.4\% \text{ or } 7\%$$

Interpretation: Out of every shs 100 of total net purchases made by the business. shs 7 are /were credit purchase.

Or Creditors to purchase ratio =  $\frac{Creditors}{Net\ purchases} = \frac{shs\ 3,912,000}{shs\ 52,893,000} = 0.07:1$

Interpretation: Out of every shs 100 of total net purchases made by the business. shs 0.07 are /were credit purchase

1. a) Differentiate between margin and markup  
 Margin is gross profit expressed as percentage of selling price of sales while, Mark up is gross expressed as a percentage of cost or cost of sales
- b) The following information relates to the retailers business for the year ending 31<sup>st</sup> Dec 2003

Stock on 1 <sup>st</sup> Jan	shs 344,300
Stock on 31 <sup>st</sup> Dec	267,200
Net purchase	2,122,900

Markup 40%  
 Expenses 458,000

**Calculate**

i) Cost of sales

$$\begin{aligned} \text{Cost of sales} &= \text{Opening stock} + \text{Net purchases} - \text{closing stock} \\ &= (344,300 + 2,122,900) - 267,200 \end{aligned}$$

$$\text{Cost of sales} = \text{shs } 2,200,000$$

ii) Average stock

$$\text{Average stock} = \frac{\text{opening stock} + \text{closing stock}}{2}$$

$$\frac{344,300 + 267,200}{2}$$

$$\text{Average stock} = \text{shs } 305,750$$

iii) Rate of stock turn

$$\frac{\text{Cost of sales}}{\text{Average stock at cost}} = \frac{2,200,000}{305,750} = 7.1 \text{ times}$$

The stock was sold and replaced 7 times in the trading period

iv) Gross profit = Net sales X Cost of sales

$$\text{But Markup} = \frac{\text{Gross profit}}{\text{cost of sales}} \times 100$$

$$\begin{aligned} \text{Therefore: Gross profit} &= \frac{\text{mark up} \times \text{cost of sales}}{100} \\ &= \frac{40 \times 2,200,000}{100} \end{aligned}$$

$$\text{Gross profit} = \text{shs } 880,000$$

v) Net profit

$$\begin{aligned} \text{Net profit} &= \text{Gross profits} - \text{Expenses} \\ &= 880,000 - 458,000 \end{aligned}$$

$$\text{Net profit} = \text{shs } 422,000$$

**Exercises. Please keep on practicing**

The following Balance sheet relates to Black Beauty LTD as at 31/12/1997

Particulars	Amount (shs)	Amounts (shs)
Total fixed assets		10,100,000
Current assets		
Closing Inventory	1,500,000	
Accounts receivable	2,910,000	
Cash balance	800,000	
Rent received in advance	100,000	
Bank balance	2,500,000	
Total current assets		7,810,000
Total assets		17,910,000
Capital	4,800,000	
Net profit	5,310,000	
Equity capital		10,100,000
Current liabilities		
Accounts payable	4,000,000	
Income tax payable	3,500,000	

Wages and salaries due	300,000	
Total current liabilities		7,800,000
Total capital and liabilities		17,910,000

The following information is also available

Net purchases		shs 3,500,000
Turn over		shs 11,950,000
Inventory on 1/1/2014		shs 600,000
Gross profit		shs 9,350,000

- (a) Determine
  - (i) Cost of sales
  - (ii) Gross profit ratio
  - (iii) Inventory turnover period in weeks
- (b) Compute and interpret
  - (i) Current ratio
  - (ii) Quick asset ratio
  - (iii) Fixed asset turnover
  - (iv) Leverage ratio
- (c) What measures can the business adopt in order to increase its profitability.

2. A firm had the following records as at 31<sup>st</sup> December 2010

Capital	shs 700,000
Equipment	shs 280,000
Stock	shs 150,000
Creditors	shs 200,000
Debtors	shs 100,000
Land	shs 500,000
Bank loan	shs 200,000
Bank overdraft	shs 100,000
Buildings	shs 300,000
Debenture	shs 300,000
Net profit	shs 400,000
Drawings	shs 100,000
Stock	shs 150,000
Cash at hand	shs 350,000

**Calculate the following**

- i) Owner's equity
  - ii) Fixed capital
  - iii) Working capital
  - iv) Borrowed capital
  - v) Rate of return on capital
3. a) Distinguish between Insolvency and Bankruptcy
- b) The following balances of Assets and liabilities were obtained from books of MAMA Traders as at 31<sup>st</sup> Dec 2009
- |              |           |
|--------------|-----------|
|              | Shs       |
| Buildings    | 750,000   |
| Furniture    | 200,000   |
| Motor Van    | 280,000   |
| Capital      | 1,270,000 |
| 2 years loan | 900,000   |

3 years loan	700,000
Creditors	700,000
Salary dues	650,000
Stock at close	840,000
Debtors	390,000
Cash at bank	540,000
Cash at hand	40,000

**Calculate**

- i) Capital owned
- ii) Working capital
- iii) Net capital employed
- iv) Fixed capital

(a) The following balances were extracted from the financial records of MUJE enterprises Ltd for the year ended 31<sup>st</sup> December 2015

	Shs
Sales	4,000,000
Purchases	6,600,000
Bank	660,000
Land	1,520,000
Debtors	400,000
Loan	2,680,000
Computer	800,000
Gross profit	1,000,000
Cash	350,000
Creditors	480,000
Drawings	200,000
Capital	2,000,000
Equipment	600,000
Expenses	200,000
Bank overdraft	200,000
Stock 1 <sup>st</sup> Jan 2015	400,000
Furniture and fittings	400,000
Stock 31 <sup>st</sup> December 2015	600,000

Required to:

Calculate and interpret

- i. Working capital ratio
- ii. Rate of stock turn
- iii. Gross profit margin
- iv. Net profit margin
- v. Acid test ratio
- vi. Rate of return on capital employed
- vii. Average credit period
- viii. Average collection period for debts



4. The following information was obtained from the books of Collins as at 31.12.2013

Particulars	Shs
Capital	21,000,000
Purchases	30,500,000
Sales	48,000,000
Return outwards	1,600,000
Stock (Jan 1 <sup>st</sup> 2013)	5,000,000
Electricity	700,000
Salaries and wages	2,000,000
Returns inwards	1,200,000
Rent	300,000
Discount allowed	600,000
Furniture at cost	3,000,000
Building	20,000,000
Debtors	9,000,000
Creditors	5,200,000
Carriage on purchases	200,000
Bank overdraft	4,000,000
Cash	8,000,000
Commission received	1,000,000
Stock 31 <sup>st</sup> -12-2013	1,000,000

Calculate the following

- a) Cost of goods sold
- b) Turn over
- c) Gross profits
- d) Net profits
- e) Fixed capital
- f) Working capital
- g) Capital owned
- h) Current ratio
- i) Rate of return on capital employed
- j) Current ratio
- k) Rate of stock turn
- l) Average payment period
- m) Average collection period for debit in month
- n) Debit ratio

A retail business had the following information in the year ended 30. 06. 2012

<b>Particulars.</b>	<b>Shs.</b>
Sales	3,600,000=
Land and buildings	790,000=
Capital	1,200,000=
Plant and machinery	600,000=
Bank loan	1,430,000=
Motor cycle	320,000=
Drawings	260,000=
Furniture	400,000=
Net profit for the year	600,000=
Closing stock ( 30.06.2012)	600,000=

Creditors	540,000=
Debtors	500,000=
Bank overdraft (in land Bank)	400,000=
Bank balance (coastal Bank)	360,000=
Cash balance	350,000=

Required:

- (a). Prepare the balance sheet as at 30. 06. 2012
- (b). Calculate:
  - (i). Working capital ratio
  - (ii). Return on capital employed
  - (iii). Average collection period

The following balances were extracted from the financial statement of Nalufenya Enterprises at the end of 2016.

Particulars	Shs
Cash	2,010,000
Bank	(600,000)
Sales	35,000,000
Purchases	9,500,000
Average stock	4,000,000
Rate of stock turn	5 times
Fixed Assets	5,000,000
Accounts payable	450,000
Closing stock	2,500,000
Accounts receivable	6,590,000
Total operating expenses	8,750,000
Interest receivable due	50,000

Required to;-

- a) Calculate;-
  - (i) Cost of sales
  - (ii) Gross profit
  - (iii) Net profit
  - (iv) Opening stock
  - (v) Net profit ratio
  - (vi) Working capital
- b) Compute and interpret
  - (i) Stock/ Holding period in weeks
  - (ii) Rate of creditors turnover
  - (iii) Quick Asset ratio
  - (iv) Debtors collection period in days

The following financial statements relate to Kabo enterprises ltd.

**Kabo enterprises ltd**  
**Income statement For the year ended 31<sup>st</sup> dec. 2016**

Details	Shs	Shs
Sales		850,000,000
<b>Less</b> cost of sales		610,000,000
Gross profit		240,000,000
<b>Less</b> operating costs		
Administrative costs	72,000,000	
Selling and distribution costs	50,000,000	
Other costs	18,000,000	
		<b>140,000,000</b>
Profit before tax		100,000,000
Less taxation 30%		30,000,000
Profit after tax		70,000,000

**Kabo enterprises ltd**  
**Statement financial position (balance sheet)**  
**As at 31<sup>st</sup> December. 2016**

<b>Fixed assets (net)</b>		
Motor vehicles	120,000,000	
Land and premises	100,000,000	
Furniture and fittings	80,400,000	
Equipment	60,100,000	
<b>Total fixed assets</b>		361,000,000
<u>Current assets</u>		
Inventory	35,500,000	
Debtors	64,900,000	
Prepayments	6,200,000	
Bank	45,400,000	
Total current assets		152,000,000
Total assets		<b>513,000,000</b>
Capital and liabilities		
Capital		
Owners – equity		200,500,000
Liabilities		
Five-year (loan)		130,000,000
Creditors		152,500,000
Unpaid tax		30,000,000
Total capital and liabilities		<b>513,000,000</b>

**Required**

- a) Compute the following ratios
  - i. Gross profit margin
  - ii. Net profit margin
  - iii. Profit on total assets ratio
  - iv. Current ratio
  - v. Acid test ratio
  - vi. Fixed asset turnover
  - vii. Debtors turnover

- b) Kabo enterprises has applied for a short term bank loan of shs 40,000,000 repayable within six months

**Required**

Give reasons why the bank should accept or reject the application basing on the current ratio in 2 (a) (iv) above

## TAXATION

Tax refers to a compulsory charge levied by the government or any other competent authority on persons (individuals, co-operation and other legal entities) in order to finance government activities.

Or

It is a legal compulsory transfer of funds from the public to the fiscal authority irrespective of the exact amount of benefits rendered to the tax payer by the government.

## BASIC TERMS USED IN TAXATION

1. **Tax base.** This refers to any item or economic activity that is subject to tax. This may include the following
  - ✓ Income earned from economic activities like trade and manufacturing
  - ✓ Consumption of goods which are subject to taxation
  - ✓ Income earned from employment
  - ✓ Property or assets like house, land and other investment
2. **Tax liability.** Refers to the total amount of money that a tax paying unit is expected to pay within a given period of time.
3. **Tax rate.** This is applied on a tax base to derive a tax liability which is the obligation the tax payer meets. The rate is represented as either a percentage or a fixed or a specific value based on units

## Tax Computation/ Tax Rates

Local excise duty rates may be ad valorem or specific:

An ad valorem rate is a fixed percentage of the value of the goods that is the ex-factory price e.g. 10% of value X A specific rate is a value of a specific amount of money that does not vary with the price of the good but with its weight, volume, surface, etc. The specific rate stipulates how many units of currency are to be levied per unit of quantity (e.g. sugar is charged at a specific rate of Shs 50 per kg).

### On Goods: (using ad valorem rate)

Excise duty is payable on the ex-factory price of the manufactured goods. If the Ex-factory price of water (price at delivery) is Shs 1,000 per litre, therefore excise duty will be 10% of the Shs 1000 per litre.

*i.e. Ex-factory price = Shs 1,000*

*Excise duty at a given rate (10%) = 1,000 × 10%,  
= Shs 100.*

Total price before VAT will be Ex-factory price plus excise duty.

**OR Total price before VAT = Ex-factory price + Excise duty**

*= 1,000 + 100*

*= Shs 1,100*

*VAT thereof at a given rate of (18%) = 1,100 × 18%*

*= Shs 198*

*Selling price = Shs 1298*

### **On Goods (using specific rate)**

If the total amount of sugar delivered out of the factory is 120,000 kg for a given period, then excise duty on the sugar will be Shs 50 for every kg delivered.

*i.e. Number of kg delivered = 120,000 kg*

*Excise duty on the delivery = 120,000 × Shs 50 = Shs 6,000,000*

### **On services**

Excise duty on services (airtime usage) is payable on the usage charged by the telephone services providers. **Sec. 2 of the Excise Tariff Act.** Section 5 of the Excise Tariff Act states that the excise duty shall be charged together with Value Added Tax. Therefore if the value of Airtime cards is Shs 1,539.

Then excise duty will be 12% of the Shs 1,539 and VAT will be 18% of the Shs 1,539.

*Therefore cost of airtime card Shs 1,539*

*Excise duty 12% = 1,539 × 12%*

*= Shs 184*

*VAT at 18% = 1,539 × 18%*

*= Shs 277*

*Total taxes = 277 + 184*

*30% = 461*

*Selling price of airtime card = 461 + 1539*

*= Shs 2,000*

For instance if the income tax payable by companies is 30% and the export duty for hides and skins is 0.25 dollars per kilogram

### **Illustrations**

(a) If A is the tax base and B is the rate, then the product of A and B is the tax liability  
ie  $A \times B = \text{Tax liability}$

(b) Assume a company had a taxable income of Uganda shs 200,000 and the tax rate is 30% its tax liability will be

$$200,000 \times \frac{30}{100} = \text{shs } 60,000$$

(c) Assume the company above export 150 kgs of hides and skins to Europe, its tax liability will be

$$150 \times 0.25 \text{ Dollars} = 37.5 \text{ Dollars}$$

N.B. if the tax base is to be paid in Ugandan currency, the ruling exchange rate will be applied, like if a Dollar is equivalent to 1960 shs, then the amount payable in Ugandan shillings would be shs 73,500

**4. Tax compliance.** This is the degree to which the tax paying community meets the tax obligation as set up in appropriate legal and regulatory provisions.

5. **Threshold of a tax.** Refers to the amount of money or level of income from which the tax liability begins.
6. **Tax evasion.** This is the deliberate refusal of a tax paying unit to pay its tax obligations in order to reduce its tax liability.
7. **Tax avoidance.** This is where a tax payer escapes paying tax or pay less by taking advantage of the Loopholes in the tax laws to reduce one's tax liability.
8. **Value Added Tax.** Tax levied on consumption of goods and services and imposed on value added at every stage in the chain of distribution and production of goods and services
9. **With Holding Tax.** These taxes are a form of income tax deducted at source by one entity upon making a payment to another entity
10. **Excise duty.** This is imposed on the importation of specific goods with a view of influencing their supply or consumption in the local market, it is normally charged on socially undesirable and luxurious goods
11. **Capitalization of a tax.** This is a situation where a tax paying unit usually a firm artificially increase the value of its capital employed so as to reduce its tax liability.
12. **Tax holiday.** This refers to the period of non – tax payment given by the government to reduce consumers spending and encourage investment spending.
13. **Average rate of tax.** This refers to the proportion of income that is paid out as tax.  
Average rate of tax =  $\frac{(\text{tax amount})}{\text{total income}} \times 100$
14. **Marginal rate of tax.** Refers to the proportion of additional income that is paid out.  
Marginal rate of tax =  $\frac{(\text{change in tax})}{\text{change in income}} \times 100$
15. **Tax rebate.** This refers to the tax reduction under special consideration
16. **Tax yield.** This refers to the amount of tax revenue collected from a given number of taxes
17. **Hidden tax.** This refers to the tax paid on purchase of goods and services and usually included in the prices of commodities being bought or taxed.
18. **Tax haven.** This refers to a situation where a country deliberately offers low tax rates or relaxed / liberal tax so as to attract as much foreign investment and trade as possible.
19. **Taxable income.** This refers to income subjected to taxation
20. **Taxable capacity.** Refers to the ability of individuals to pay taxes imposed on them without affecting his / her standard of living.
21. **Forward shifting of a tax.** This is when the money burden of the tax is shifted by the tax payer to another party who buys the output being taxed. For example a manufacturer may shift the burden to tax to the wholesaler who then shifts it to the retailer and the retailer then shifts it to the final consumer.
22. **Back ward shifting of a tax.** This is when the official tax payer shifts the money burden of a tax to the person from whom he buys. For instance a producer using a given raw material may shift the money burden to the supplier of such a raw material.

## TYPES OF TAXES

There are two broad categories of taxes ie direct and indirect taxes

## **DIRECT TAXES**

These are taxes levied on the incomes and property of individuals and business entities, the burden of which is directly borne by the person paying it. Direct taxes include the following

- ✓ Income tax. This is the tax levied on profits or income earned by an individual or a business entity. It takes two forms ie personal income tax and corporation tax
  - (i) Personal income tax. Is a tax that is levied on the income of an individual and it's normally a progressive tax
  - (ii) Corporation tax is a tax levied on corporation or company premises and its normally proportional tax based on the net income of the company. The tax base for income tax include profits from business, rent and royalties (money paid for using one's patent right or assets like land) from selling assets and income from investments like shares, debentures and other securities and income from employment
- ✓ Wealth tax. It is a tax levied on the accumulated wealth and savings of an individual or business entity. It may be levied on shares, land and other investment
- ✓ Capital gain tax. This is tax levied on profits received from the sale of capital assets like sale of property, investment stock etc
- ✓ Estate duty. This is a duty levied on estates of deceased persons. It is levied before or after the property in the estate is shared out to the different beneficiaries as based on market value of the estate
- ✓ Gift tax. This is the tax on gifts or gratuitously acquired

## **INDIRECT TAXES**

These are taxes that are levied on goods and services paid by an individual or business entity and shifted to the final consumer. These taxes are voluntary in that sense you can only pay them if you opt to buy the goods or consume services which are levied. The common types of indirect tax include

- ✓ Customs duty. This is levied on goods that cross national boarder point either as imports into the country or exports leaving the country. The tax on imports is referred to as import duty while tax on exports is referred to as export duty.
- ✓ Excise duty. This is a duty levied on the production or importation of specific goods with a view to influence their consumption or supply in the market.
- ✓ Specific tax. This is a fixed monetary tax per physical unit of good imported for example shs 100,000 per tonne of maize flour.
- ✓ Octroi tax. This is a tax imposed on goods in transit through a given country.
- ✓ Sales tax. It is a tax levied as a percentage on goods or service sold.

- ✓ Value Added Tax (VAT). This is a tax levied on consumption of goods and services. It is levied on the value added at every stage in a chain of production or distribution of goods and services.

Or

It is an abroad based indirect tax on consumption, charged on value added to "taxable" goods and services, at different stages on the chain of distribution i.e. the more you buy, the more you pay. It is charged on both local products and imports. It is not a cost to a producer or the distributor chain member and its full impact is borne by the end consumer. It was first introduced in the European Union in the 1970's

It was introduced in Uganda with effect from 1<sup>st</sup> July 1996. It replaced sales tax and commercial transaction levy (CTL)

The governing law is the VAT Act (Cap 349)

### **Main Features of VAT**

- ✓ Is an abroad – based tax charged and collected at all stages in the chain of distribution. I.e. its multi stage
- ✓ Is an indirect form of tax i.e. the one paying is the one who incurs the tax burden
- ✓ It is charged on expenditure (consumption) and not income
- ✓ Is charged on value added
- ✓ It is ultimately borne by the final consumer
- ✓ Credit mechanism (VAT on inputs credited against taxes on output)

### Illustration 1

Assuming that there are three levels in the chain of production as follows

- (a) Stage I. Importation of goods with a taxable value of 10,000 shillings
- (b) Stage II. Sale of goods by the importer to a retailer at shs 15,000
- (c) Stage III. Sale of goods to a final consumer by the retailer at shs 25,000

Calculate the total VAT payable

**Stage I.** VAT will be charged on importation price

VAT Rate = 18%

VAT Payable = VAT Rate X initial cost

$$18\% \times 10,000 = \text{shs } 1,800$$

**Stage II.**

VAT payable = Value added X VAT rate

Value added = 15,000 – 10,000 = 5,000

Vat payable = 5,000 X  $\frac{18}{100}$  = shs 900

**Stage III**

VAT payable = Value Added X VAT Rate

Value added = 25,000 – 15,000

Vat payable = 10,000 X  $\frac{18}{100}$  = shs 1,800

N.B total VAT payable from the 3 stages is 4,500 shillings



From the above, it is clear that though Vat is collected from the three stages, the one who bears the burden is the final consumer

## Illustration 2

The following VAT exclusive transactions were availed to you by VAT registered business in your town for the month of December 2016

- I. Rachael bought goods worth shs 80,000,000
- II. Rachael sold the same goods to Penrose for shs 90,000,000
- III. Penrose sold the same goods to Deborah a retailer for shs 100,000,000
- IV. Deborah sold the same goods to the final consumer for shs 120,000,000

Required

Using the VAT Rate of 18%

- I. Compute for the entrepreneurs the VAT chargeable for the value added at each stage
- II. Advise Deborah on the gross value for her goods to the final consumer

## Solution

### Stage 1

VAT Payable = initial cost X VAT Rate

$$80,000,000 \times \frac{18}{100} = 14,400,000 \text{ shillings}$$

### Stage 2

VAT Payable = Value Added X VAT Rate

Value added = (90,000,000 – 80,000,000) = 10,000,000 shillings

VAT Payable = 10,000,000 X  $\frac{18}{100}$  = shillings 1,800,000

### Stage 3

VAT Payable = Value Added X VAT Rate

Value Added = (100,000,000 – 90,000,000) = 10,000,000 shillings

VAT Payable = 10,000,000 X  $\frac{18}{100}$  = 1,800,000 shillings

### Stage 4

VAT Payable = value Added X VAT Rate

Value Added = (120,000,000 – 100,000,000) = 20,000,000

VAT Payable = 20,000,000 X  $\frac{18}{100}$  = 3,600,000 shillings

(ii) Gross sales Value = selling price X VAT chargeable

$$\text{Shs } 120,000,000 + \frac{18}{100} \times 120,000,000$$

$$\text{Gross value} = 120,000,000 + 21,600,000 = \text{shs } 141,600,000$$

Deborah would be advised on the gross value as follows

- Deborah should include VAT chargeable in her selling price / determining her selling price
- Deborah should have sold her goods to the final consumer at shs 141,600,000 inclusive of VAT

## Trial question

The following VAT exclusive transactions were availed to you by VAT registered businesses in your town for the month of May 2015,

- (i) Masanso bought goods worth shs 60,000,000
- (ii) Masanso sold the same goods to Kibooko for shs 88,000,000

(iii) Kibooko sold the same goods to Onzita a retailer for shs 96,000,000

(iv) Onzita sold goods to the final consumer for shs 120,000,000

Required

Assuming the VAT rate is 18%

(a) Compute for the entrepreneur VAT chargeable for value added at each stage and advice Onzita on the gross sales value for his goods to the final consumer

### Stage 1

VAT = initial cost X VAT rate

$$\text{VAT} = 60,000,000 \times \frac{18}{100}$$

$$\text{VAT} = \text{shs } 10,800,000$$

### Stage 2

VAT = value added X VAT rate

$$\text{Value added} = 88,000,000 - 60,000,000 = 28,000,000$$

$$\text{VAT} = 28,000,000 \times \frac{18}{100}$$

$$\text{VAT} = \text{shs } 5,040,000$$

### Stage 3

VAT = value added X VAT rate

$$\text{Value added} = 96,000,000 - 88,000,000 = 8,000,000$$

$$\text{VAT} = 8,000,000 \times \frac{18}{100}$$

$$\text{VAT} = \text{shs } 1,440,000$$

### Stage 4

VAT = value added X VAT rate

$$\text{Value added} = 120,000,000 - 96,000,000 = 24,000,000$$

$$\text{VAT} = 24,000,000 \times \frac{18}{100}$$

$$\text{VAT} = \text{shs } 4,320,000$$

**Total VAT = 21,600,000**

Onzita should sell his goods to the final consumer including the VAT of shs 21,600,000. Therefore he should sell his goods at shs 141,600,000 to final consumer

**Non- tax revenue** is the revenue obtained by the government from sources other than tax.

**Non – tax sources of revenue include**

- Licenses
- Market dues
- Fine imposed on those who do not obey the law of the country
- Grants and gifts
- Sale of government property
- Profit from government undertakings like mines, national parks, forests etc
- Deficit financing. Deficit means an excess of public expenditure over public revenue. This excess may be met by borrowings from the market, borrowings from abroad, by the central bank creating currency.

## **TAX EVASION.**

This is the deliberate refusal of a tax paying unit to pay its tax obligations in order to reduce its tax liability.

### **Forms / ways/ examples of tax evasion**

- ✓ smuggling ie failure to declare entry or exit of goods
- ✓ under declaration of income ie business income or personal income
- ✓ giving lower value of the goods / services imported or exported by the business
- ✓ refusal of the business to register for VAT
- ✓ overstating of business expenses so as to declare less profits
- ✓ Capitalization of tax so as to pay less on business profits
- ✓ Bribing tax collectors
- ✓ Hiding from tax collectors

### **Causes / reasons for tax evasion**

- ✓ Progressive taxation where the tax rate increase with level of income.
- ✓ high taxes imposed by the government
- ✓ double taxation especially on companies and the share holders
- ✓ ignorance of the public about the importance of paying taxes to the country
- ✓ corrupt government characterized by misuse and embezzlement of tax funds
- ✓ Weak tax administration system characterized by loopholes in tax collection.
- ✓ Discontentment about provision of services by the government from taxes paid

### **Steps to be taken by the business to minimize tax evasion / increase the level of tax compliance.**

- ✓ advocating for fair tax rates through business associations
- ✓ Obtaining tax education by attending workshops on taxes.
- ✓ Resisting corrupt tax officers to avoid bribe and pay little or zero tax.
- ✓ Filling monthly tax returns to the relevant tax authorities.
- ✓ Maintaining proper business records.
- ✓ Ensuring prompt payment of taxes to the tax authorities.

### **Consequences of tax evasion to the business.**

- ✓ Temporally or permanent closure of the business hence loss of business income.
- ✓ Denial of government support or standing for election offices where tax compliance is considered a pre – requisite.
- ✓ Penalties for non – payment of taxes.
- ✓ Forceful payment of arrears from the business profits or entrepreneurs' income.
- ✓ Bad public image of the business especially when closed.
- ✓ Loss of smuggled goods that are confiscated by tax authorities.
- ✓ Imprisonment over non – paid tax obligation.

## **TAX AVOIDANCE**

This is where a tax payer escapes paying tax or pay less by taking advantage of the Loopholes in the tax laws, it involves taking advantages of the loopholes in the law to reduce one's tax liability.

Though tax avoidance is legal, it is undesirable act that usually leads to non-compliance. Tax avoidance and tax evasion actions results into losses of tax revenue and thus undesirable to the authorities

## **Smuggling**

Is an activity which involves the importation or exportation of goods by wrong or unlawful means with the objective of evading taxes. Smuggling is an illegal method of conducting business

Forms of smuggling

- Under declaration of goods
- Under valuation of goods
- Misclassification of goods
- Mis-declaration of country of origin
- Short landing transit / re-export of goods
- Falsification of goods
- Dumping
- Document counterfeiting
- Avoid customs entry points and concealment of dutiable goods

### **Presentation on procedures for tax compliance.**

- ✓ Registration of the tax payers with Uganda Revenue Authority.
- ✓ Obtaining the tax identification number (TIN)
- ✓ Preparation of tax records i.e income statement, tax returns
- ✓ Getting assessed for tax by the tax authorities.
- ✓ Submitting timely tax returns.
- ✓ Payment of taxes.
- ✓ Receiving feedback from the tax authority i.e by SMS, tax certificates

NB. The steps must be in chronological order.

Mark activities if programme is used.

### **Presentation on penalties for non-tax compliance should include;**

- ✓ Forceful payment of all the tax arrears/ imposition of fines or penalty on tax defaulters.
- ✓ Temporally or permanent closure of the business that regularly evade taxes.
- ✓ Confusion of the goods being smuggled to evade taxes.
- ✓ Publishing of tax defaulters once identified.
- ✓ Denial of government support to non-compliant tax payers.
- ✓ Denial of public/government contracts and tenders once tax payer is blacklisted.
- ✓ Strict monitoring of the tax defaulters' business.
- ✓ Denial of any relevant tax refunds that ought to be paid by tax authority to a non-tax compliant tax payers.
- ✓ Imprisonment of tax defaulters after court ruling.
- ✓ Taking over a tax defaulters business
- ✓ Inclusion of tax defaulters in the shame list

### **International taxes (customs and excise) This includes**

- Customs duty and excise duties on imports
- VAT on imports
- Withholding tax on imports
- Trade regulations

### **Domestic taxes. The deals with**

- Income tax

- Rental tax
- Withholding tax on supply of good and services
- VAT on local goods and services
- Local excise duty
- Gaming tax

### **OBLIGATION OF A TAX PAYER**

- File returns in prescribed format and on time
- Pay taxes on due date
- Keep proper records of accounting
- Display registration certificate in business premises
- Communicate changes in registration details e.g. name, address, nature of the business etc
- A tax payer is required to register voluntarily with URA
- Disclosure / declaration of information which ever URA needs to know

### **RIGHTS OF A TAX PAYER**

- Right to be attended to URA as regards to appeal and objections
- Right to prior notice by URA on any matter like inspection
- Right to claim for refunds by URA within the prescribed time limit
- Right to be attended to by URA in regard to processing returns, customs entries and other documents

**Individual income tax.** This tax is imposed on the chargeable income of an individual. Chargeable income is derived from gross income

Gross income: there are three sources of income under the Income Tax Act.

- i) Business income
- ii) Employment income
- iii) Property income

**Business income.** Is any income derived by a person from carrying on a business and also includes a gain on disposal of a business asset.

**Employment income is** income earned by an employee from any employment and includes wages, salary, leave pay, payment in lieu of leave, overtime pay, commission, gratuity, bonus or the amount of any travelling, entertainment, utilities, cost of living, housing, medical or other allowance and the value of benefits granted.

**Property income** includes any dividends, interests, annuity, natural resources payments, rents, royalties and any other payments derived by a person from the provision, use, or exploitation of property.

The sum of the income from all the three sources above is referred to as gross income. This excludes income that is exempt from tax.

## INCOME TAX

Is direct tax imposed on a person's income at specific rates for a given period of time. It is charged on every person who has chargeable income for each year of income.

Chargeable income of a person for a year of income is the gross income of the person for the year of income less total allowable deductions.

### Example

IVAN is a resident individual. He earned the following income during the year ended 2015.

Property income shs 120,000,000

Employment income shs 80,000,000

Business income from his whole sale shop in Kawanda shs 250,000,000

Required

Compute Ivan's gross income

Solution

Property income	120,000,000
Employment income	80,000,000
Business income	250,000,000
<b>Gross income</b>	<b>450,000,000</b>

### Question 1

Ms Kirabo Susan a resident of Lungala earned income from different sources in the year 2008 as indicated below.

Business income shs 1,000,000, employment income shs 2,400,000, property income shs 500,000, In addition, he incurred expenses totaling to 1,200,000 shs to earn the income, shs 150,000 is exempted from tax. Determine Ms Kirabo's gross income and her chargeable income

#### Solution

(i) Gross Income = Total Income – Tax exempted income

But Total income = Business income + employment income + property income

	1,000,000	+	2,400,000		+	500,000
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Gross income = 3,900,000 – 150,000 = **shs 3,750,000**

(ii) Chargeable income = Gross Income – Expense

3,750,000	-	1,200,000
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Chargeable income = **shs 2,550,000**

### Question 2

Marvin earned income from different sources for the year 2013

**Business income shs 2,000,000**

**Employment income shs 4,800,000**

**Property income shs 100,000**

In addition, he incurred expenses and losses amounting to shs 2,400,000. A total of shs 300,000 out of the income is tax exempt

Required: determine Marvin's Gross Income and Chargeable income

(i) Gross Income = Total Income – Tax exempted income

But Total income = Business income + employment income + property income  
 Shs 2,000,000 + shs 4,800,000 + shs 100,000

Total income = shs 6,900,000

Gross Income = shs 6,900,000 – shs 300,000

Gross income = **shs 6,600,000**

(ii) Chargeable income = Gross Income – Expense

Shs 6,600,000 – shs 2,400,000

Chargeable income = **shs 4,200,000**

### **EMPLOYEES RELIEF / EXEMPT EMPLOYMENT INCOME**

**This** refers to gains or income that is not included in chargeable income and therefore not taxable.

- Pension; pension is tax exempt
- Medical expenses or discharge
- Life insurance
- Meals and refreshment ( if provided in equal terms to all employees)
- NSSF contributions
- Services of security guards
- Allowances paid to a member of parliament except salary
- Terminal benefit for a worker who has provided services for a period of ten years
- Non cash benefit whose value is below 10,000

#### **Taxable benefits for a tax payer**

- Housing / accommodation allowance
- Transport allowance
- Medical allowance
- Holiday allowance / leave allowance
- Entertainment allowance
- Training allowance
- Bonus pay
- Interest benefit
- Motor vehicle benefit
- Loan benefit
- House keeper allowance
- Etc ( make more research)

#### **Computation of chargeable income**

Employment income	Shs	Tax Treatment
Basic salary	xxx	Taxable
<b>Add other allowance</b>		
Bonus pay	xxx	Taxable
Loan benefit	xxx	Taxable
Transport allowance	xxx	Taxable
Medical allowance	xxx	Taxable
Chargeable employment income	xxx	

## Individual TAX RATES

Income is charged tax in relation to a defined year of income where a tax rate of an individual is based on a year, however, in the case of PAYE, the rate administratively reduced to monthly rates

### Chargeable (monthly) income

Chargeable monthly Income (shs)	Tax rate (shs)
0 – 235,000	Nil
235,001 – 335,000	10% of the amount by which chargeable income exceeds shs 235,000
335,001 – 410,000	Shs 10,000 plus 20% of the amount by which chargeable income exceeds shs 335,000
410,000 and above	(A) Shs 25,000 plus 30% of the amount by which chargeable income exceeds shs 410,000
	(B) where the chargeable income of an individual exceeds shs 10,000,000 an additional 10% is charged on the amount by which chargeable income exceeds shs 10,000,000

### Chargeable (annual) income

Chargeable annual Income (shs)	Tax rate (shs)
Not exceeding shs 2,820,000	Nil
Exceeding shs 2,820,000 but not exceeding shs 4,020,000	10% of the amount by which chargeable income exceeds shs 2,820,000
Exceeding shs 4,020,000 but not exceeding shs 4,920,000	Shs 120,000 plus 20% of the amount by which chargeable income exceeds shs 4,020,000
Exceeding shs 4,920,000	(A) Shs 300,000 plus 30% of the amount by which chargeable income exceeds shs 4,920,000
	(B) where the chargeable income of an individual exceeds shs 120,000,000 an additional 10% is charged on the amount by which chargeable income exceeds shs 120,000,000

### Non- resident individuals

The rate for non- resident individuals does not include tax free allowance.

Chargeable annual Income (shs)	Tax rate (shs)
Not exceeding shs 4,020,000	10%
Exceeding shs 4,020,000 but not exceeding shs 4,920,000	Shs 402,000 plus 20% of the amounts greater than shs 4,020,000
Exceeding shs 4,920,000	(A) Shs 582,000 plus 30% of the amount by which chargeable income exceeds shs 4,920,000
	(B) where the chargeable income of an individual exceeds shs 120,000,000 an additional 10% is charged on the



	amount by which chargeable income exceeds shs 120,000,000
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Chargeable monthly Income (shs)	Tax rate (shs)
Not exceeding shs 335,000	10%
Exceeding shs 335,000 but not exceeding shs 410,000	Shs 335,000 plus 20% of the amounts greater than shs 335,000
Exceeding shs 410,000	(A) Shs 48,500 plus 30% of the amount by which chargeable income exceeds shs 410,000
	(B) where the chargeable income of an individual exceeds shs 10,000,000 an additional 10% is charged on the amount by which chargeable income exceeds shs 10,000,000

It should be noted that non- resident employees are not entitled to the threshold ( shs 235,000); so at every amount under rates of tax, add shs 23,500 or ( 10% of 235,000)

### Question 1

Suppose **Ms Nkinzi Penrose's** monthly income is shs 350,000. How much does she pay as PAYE?

Tax payable = 10,000 + 20% of excess of shs 335,000

$$10,000 + \frac{20}{100} \times (350,000 - 335,000)$$

Tax payable = 10,000 + 0.2 X 15,000

Tax payable = 10,000 + 3,000

**Tax payable = shs 13,000**

### Question 2

Mr. Kimuli Fred is earning shs 2,000,000. How much does he pay as PAYE?

Tax payable = 25,000 +  $\frac{30}{100}$  X (2,000,000 - 410,000)

Tax payable = 25,000 + 477,000

**Tax payable = shs 502,000**

### Question 3

Ms. Mulungi Anna works with Mega Standards Super Market as an Accountant and earns a monthly salary of shs 16,000,000. How much does she pay as PAYE.

(i) Tax payable = shs 25,000 + 30% Of shs 410,000 Plus 10% of excess of 10,000,000

Tax payable = shs 25,000 +  $\frac{30}{100}$  X (16,000,000 - 410,000)

Tax payable = shs 25,000 + 4,677,000

Tax payable = shs 4,702,000

(ii)  $10\% (16,000,000 - 10,000,000) = \text{shs } 600,000$

Tax payable is  $4,702,000 + 600,000$

**Tax payable = shs 5,302,000**

#### Question 4

**Ms. Nakimuli Patricia**, a Ugandan working with BMK publishers LTD earns shs 350,000. Calculate her PAYE

Tax payable =  $10,000 + 20\% \text{ of } (350,000 - 335,000)$

Tax payable = shs  $10,000 + 3,000$

**Tax payable = shs 13,000**

#### Question 5

Acul Ocolo is employed as a security guard in Karacen (U) Ltd. He earns a monthly salary of Shs 225,000.

Required: Is Karacen (U) Ltd obliged to deduct PAYE tax from Acul Ocolo?

Solution

No, because Acul Ocolo's monthly salary is less than the threshold so his salary does not attract PAYE.

**Acul Ocolo is an employee of company Y. He earns the following monthly income: a salary of Shs 300,000; travelling allowance of Shs 50,000 and medical allowance of Shs 30,000, NSSF shs 30,000, life insurance premium for shs 80,000.**

Compute his monthly PAYE tax liability.

Solution

Employment Income:

Salary	300,000
Travelling allowance	50,000
Medical allowance	30,000
Total	380,000

Use rates in the third bracket, i.e.

#### Step 1

Shs 380,000 - 335,000.....45,000

#### Step 2

$20\% \times 45,000$ .....9,000

#### Step 3

$9,000 + 10,000$  .....19,000

PAYE.....19,000

Note. NSSF and life insurance premium are not included since they are exempt. Therefore not important when computing chargeable income.

(a) Calculate the income tax payable by the following employees who earned the following incomes in the month of March 2016.

(i)	Dembe	shs 235,000
(ii)	Mulembe	shs 400,000
(iii)	Makanika	shs 600,000
(iv)	musanji	shs 11,000,000

### Solution

Dembe = tax payable = tax rate x monthly gross salary

**Dembe** pays nil tax because his earnings is below tax threshold

**Mulembe tax payable = Tax rate x gross monthly salary**

$$10,000 + 20/100 (400,000 - 335,000)$$

$$10,000 + 20/100 \times 65,000$$

$$10,000 + 13,000$$

**Shs 23,000**

Makanika tax payable = tax rate x gross income

$$25,000 + (600,000 - 410,000)$$

$$25,000 + 30/100 \times 190,000$$

$$25,000 + 57,000$$

**Shs 82,000**

Musanji tax payable = tax x gross salary

$$25,000 + 30/100(11,000,000 - 410,000) + 10/100 \times (11,000,000 - 10,000,000)$$

$$25,000 + 30/100 \times (10,490,000) + (10/100 \times 1,000,000)$$

$$25,000 + 3,177,000 + 100,000$$

**Shs 3,302,000**

### Example 2

The following are monthly salaries of workers employed by malika enterprises.

Sefuka Moses	shs 200,000
Bumeke Aisha	shs 284,000
Wessel AK	shs 820,000
Pallaso juma	shs11, 000,000

Each employee receives 10% and 5% as Housing and medical allowances respectively  
Compute PAYEE paid by the above employees using tax schedule above

### SOLUTION

Ssefuka moses

Taxable income = basic salary + allowances

$$= 200,000 + \text{housing allowances } (10/100 \times 200,000) + \text{medical allowances } (5/100 \times 200,000)$$

$$= \text{shs } 200,000 + 28,400 + 14,200$$

**Shs 326,000**

$$\text{PAYEE} = 10/100 \times (326,000 - 235,000) = 10/100 \times 91,000 = \text{SHS } 9,100$$

Bumeke Aisha = taxable income = basic salary + allowances

820,000 + housing allowances (10/100 x 820,000) + medical allowances (5/100 x 820,000) = 820,000 + 82,000 + 41,000 = **Shs 943,000**

PAYEE = shs 25,000 + 30/100 (943,000 - 410,000)

25,000 + 30/100 x 533,000

25,000 + 159,900

**Shs 184,900**

Pallaso juma, taxable income = basic salary + allowances

11,000,000 + housing allowances ( $\frac{10}{100} \times 11,000,000$ ) + medical allowances (5/100 x 11,000,000)

11,000,000 + 1,100,000 + 550,000 = **Shs 12,650,000**

PAYEE = 25,000 +  $\frac{30}{100} \times (12,650,000 - 410,000)$  +  $\frac{10}{100} \times (12,650,000 - 10,000,000)$

25,000 + 30/100 x 12,240,000 + 10/100 x 2,650,000

SHS 25,000 + 3,672,999 + 265,000

**Shs 3,962,000**

B and L Construction Company employ five categories of workers and managers. The respective payment for each category is as follows:

	Category	No. of employees	Monthly Gross pay
1.	Cleaners	4	200,000
2.	Drivers	2	320,000
3.	Machine operators	5	400,000
4.	Technicians	2	3,800,000
5.	Managers	1	12,400,000

Required:

Using the PAYE tax rates provided below, calculate the amount of PAYE payable monthly by:

- Each category of employees
- B & L construction company to URA

MONTHLY CHARGEABLE INCOME (Shs)	RATE OF TAX
0 - 235,000	NIL
235,000 - 335,000	10% of the amount by which chargeable income exceeds Shs 235,000
335,000 - 410,000	Shs 10,000 plus 20% of the amount by which chargeable income exceeds Shs 335,000

410,000 – 10,000,000	i. Shs 25,000 plus 30% of the amount by which chargeable income exceeds shs 410,000 ii. Above Shs 10,000,000, charge additional 10%
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**Method 1**

Cleaner’s amount of PAYE nil or zero shillings

Reason: This is because cleaners’ monthly gross pay of shs 200,000 is below the PAYE monthly tax threshold of shs 235,000.

Driver’s amount of monthly PAYE = 10% of the amount by which chargeable income exceeds shs 235,000.

$$= \frac{10}{100} (\text{shs } 320,000 - \text{shs } 235,000) = \frac{10}{100} \times \text{shs } 85,000 = \text{shs } 8.500$$

∴ Drivers’ amount of monthly PAYE = shs 8.500 x 2 = shs 17,000

$$\text{Also Tax Rate for part (b)} = \frac{10}{100} (\text{shs } 12,400,000 - \text{shs } 10,000,000)$$

$$= \frac{10}{100} \times \text{shs } 2,400,000 = \text{shs } 240,000$$

Manager’s total monthly PAYE = [Shs 3,622,000 + shs 240,000] = shs 3,862,000

**Either**

Monthly PAYE paid to URA = total monthly PAYE for all categories

Cleaners + drivers + machine operators + Technicians + Managers

PAYE            PAYE            PAYE            PAYE            PAYE

$$\text{SHS } (17,000 + 115,000 + 2,084,000 + 3,862,000) = \text{SHS } 6,078,000$$

MONTHLY PAYE paid to URA total monthly PAYE for all categories.

Category of employees	Monthly PAYE (Shs)
Cleaners	0
Drivers	17,000
Machine operators	115,000
Technicians	2,084,000
Managers	3,862,000
<b>Total amount of monthly PAYE paid to URA</b>	<b>6,078,000</b>

**TAXATION OF PROPERTY INCOME**

**RENTAL TAX**

Rental income is defined as income earned by a person from letting out property on commercial terms.

Rent means payment including a premium or like amount, made as consideration for use or occupation of, or the right to use or occupy, land or buildings

Sources of rental income

- ✓ Commercial buildings
- ✓ Land (plots, gardens or swamps)
- ✓ Royalties (murrum, minerals, stones, rocks, etc)



## Treatment of rental income tax of an individual and a company

The difference in tax treatment of rental income earned by an individual and company as follows

- ✓ An individual enjoys a threshold of shs 2,820,000 whereas a company enjoy no threshold
- ✓ Rental income earned by individual is subjected to 20% tax rate whereas for a company it is subjected to 30% tax rate.
- ✓ An individual is granted 20% of gross rental income as allowable deductions whereas a company is entitled to deductions on actual basis, that is allowable expenses incurred.

### Computation of rental tax

#### INDIVIDUALS

In computing the rental tax for individuals, the following are considered.

- ✓ Add up all rent amounts earned by the individual during the year.
- ✓ Deduct 20% of the gross rent as allowable expenses
- ✓ Deduct threshold shs 2,820,000 to arrive at the chargeable rental income.
- ✓ Apply 20% on chargeable income to determine the rental tax payable.

#### Example

**Step 1:** determine the total annual gross rents from all sources of the individual  
say shs 10,000,000

**Step 2:** deduct 20% allowance for costs (expenses) that is  
 $20\% \times 10,000,000 = \text{shs } 2,000,000$   
Therefore balance =  $(10,000,000 - 2,000,000) = \text{shs } 8,000,000$

**Step 3:** deduct Threshold (2,820,000)  
 $8,000,000 - 2,820,000 = \text{shs } 5,180,000$

**Step 4:** determine rental tax at 20%  
 $20\% \times 5,180,000 = \text{shs } 1,036,000$

#### Rental tax for companies

**Step 1:** determine the total annual gross rents from all sources of the company. Say shs 120,000,000

**Step 2:** deduct all expenses incurred in the production of the rental income, say expenses = shs 65,000,000

Therefore

Chargeable rental income =  $120,000,000 - 65,000,000 = \text{shs } 55,000,000$

**Step 3:** determine rental tax at 30%  
 $= 30\% \times 55,000,000 = \text{shs } 16,500,000$

#### Question 1

Ms. Nyaketcho Martin and Ms Logose Delilah own a building in Busega that belonged to their late brother Muganga Anthony; they earn 4,500,000 shs as rental income from this building. The tax rate for rental tax is 20% of the chargeable rental in excess of the threshold which is shs 2,820,000

Calculate their rental tax payable

Solution	
Rental income	shs 4,500,000
Less provision for loss $20\% \times 4,500,000 =$	shs 900,000
<b>Chargeable income = (4,500,000 – 900,000) =</b>	<b>shs 3,600,000</b>
<b>Less threshold</b>	shs 2,820,000
Chargeable income	Shs 780,000
Rental tax payable (20% X 780,000)	shs 156,000

## Question 2

Musoke earned shs 6,500,000 as rental income from his house located in Kampala. Compute his rental tax

Rental income	shs 6,500,000
Less provision for loss $20\% \times 6,500,000 =$	shs 1,300,000
Chargeable income (6,500,000 – 1,300,000)	shs 5,200,000
Less threshold	shs 2,820,000
Taxable rental income	Shs 2,380,000
Rental tax (20% X 2,380,000)	shs 476,000

## Question

a) Alpha, a resident individual operates rental properties in the financial year ended December 2018. He received shs 17,500,000 as rent revenue

Required

Using allowable deductions and tax rate below

- i. Gross rental income
- ii. Taxation rental income
- iii. Tax liability for the year 2018

### Allowable deductions

- ✓ 20% as statutory expenses in gross income
- ✓ Shs 2,820,000 as tax free allowance

### Solutions

Rental income	shs 17,500,000
Less provision for loss $20\% \times 17,500,000 =$	shs 3,500,000
Chargeable income (6,500,000 – 1,300,000)	shs 14,000,000
Chargeable income	shs 14,000,000
Less threshold	shs 2,820,000
Taxable rental income	Shs 11,180,000
Tax liability	
Rental tax (20% X 11,180,000)	shs 2,236,000
Tax liability	shs 2,236,000

## VAT MECHANISM

### Output Tax

This is the VAT a taxable person charges upon making taxable supplies i.e. tax charged upon selling taxable goods and services.

### Input Tax

This is the VAT a taxable person is charged on taxable purchases and expenses incurred for business purposes. The purchases could be from local sources or imported.

This involves three items ie

- i) VAT on purchase and expenses which is called input Tax
- ii) VAT on sale which is called output Tax
- iii) VAT liability which is output Tax – input Tax
- iv) VAT refund which is input tax – output tax

NB. Where output Tax exceeds input Tax the tax payer pays the difference as VAT to URA, but where the input tax exceeds the output tax, the tax payer claims the difference as VAT Refund from URA

### Question 1

Ms. Nabuuma Oliver is a reknown retailer in Kikubo; she mainly deals in trading sugar from Kakira Sugar Uganda Ltd. In the month of February 2016 she bought 100 bags at shs 5,000,000 and resold all of them at shs 7,500,000

Calculate her input tax, output tax and VAT liability

$$(i) \text{ Input tax} = \frac{18}{100} \times 5,000,000 = \text{shs } 900,000$$

$$(ii) \text{ Output tax} = \frac{18}{100} \times 7,500,000 = \text{shs } 1,350,000$$

$$(iii) \text{ Tax liability} = \text{Output Tax} - \text{Input Tax} \\ 1,350,000 - 900,000$$

**Tax liability = shs 450,000**

### Question 2

In January Mzee Ssenkubuge bought the same quantity of sugar, at the same price, but due to credit crunch, he only sold 50 bags at a total of shs 3,750,000. Calculate his estimated VAT refund payable as at January 2016

Solution

$$\text{Input Tax} = \frac{18}{100} \times 5,000,000 = \text{shs } 900,000$$

$$\text{Output Tax} = \frac{18}{100} \times 3,750,000 = \text{shs } 675,000$$

$$\text{VAT Refund} = \text{input Tax} - \text{Output Tax} \\ \text{Shs } 900,000 - \text{shs } 675,000$$

**VAT Refund = shs 225,000**



### Question 3

In the month of July 2004. John Maria had VAT exclusive transactions with VAT registered enterprises as follow

- i) Purchase 28,000,000
- ii) Sales 3,400,000

Calculate his Vat paid to URA

i) Input Tax = Taxable value on purchases X VAT rate  
 $= 28,000,000 \times \frac{18}{100}$   
Input tax = shs 5,040,000

ii) Output Tax = Taxable value on sales X VAT rate  
 $= 3,400,000 \times \frac{18}{100}$   
Output Tax = shs 612,000  
VAT refund = input Tax - Output Tax  
 $5,040,000 - 612,000$   
VAT refund = shs 4,428,000

### Question

A VAT registered manufacturer pays shs 100,000 (exclusive of VAT) to purchase raw materials from a VAT registered tax payer. He incurs another 25% on cost for processing raw materials into finished product further he includes a markup of 40%. Required

Given the VAT rate as 18% calculate

- i. Input tax
- ii. Output tax at each of the two stages
- iii. VAT payable to URA

Solution

Input tax

$$\text{VAT rate} \times \text{purchase (cost) of raw materials}$$
$$\frac{18}{100} \times \text{shs } 100,000$$

$$\text{Input tax} = \text{shs } 18,000$$

Output at each of the two stages

Stage 1

$$\text{Output tax} = \frac{18}{100} \times (\text{shs } 100,000 + (\frac{25}{100} \times \text{shs } 100,000)) = 125,000$$

$$\text{Output tax} = \text{shs } 22,500$$

Stage 2

$$\text{Output tax} = \frac{18}{100} \times (\text{shs } 125,000 + (\frac{40}{100} \times \text{shs } 125,000)) = 175,000$$

$$\text{Output tax} = \text{shs } 31,500$$

$$\text{VAT payable} = \text{output tax} - \text{Input tax}$$

$$31,500 - 18,000$$

$$\text{VAT payable} = \text{shs } 13,500$$

### Circumstances under which VAT is refundable

- When input is greater than output tax. For instance if for a given period the input tax is shs 10,000,000 and the output tax is shs 4,000,000, then the difference of shs 6,000,000 would be refunded to the tax payer.

- When a taxpayer pays more than what was supposed to be paid, the excess is refunded. For example if one is supposed to pay shs 5,000,000 and it is discovered that the true tax was supposed to be shs 3,000,000, then the excess of shs 2,000,000 is refunded.
- When there is a proven bad debt. A bad debt for VAT refund considers the following
  - Should have been outstanding for a period of at-least two years
  - There should be proof that all necessary steps were taken to recover the money but no avail.
- When one loses the stock through fire, burglary and any other proven methods.

**NOTE; WHEN THE VAT EXCLUSIVE**

Example

Allan a wholesaler trader in Nakasero market made his purchases and sales during the month of September 2009 and it is as follows

No.	Items	Purchases (VAT exclusive)	Sales (VAT exclusive)
1.	150 bags of sugar	7,500,000	9,000,000
2.	10 boxes of soap	500,000	6,000,000
3.	300 carton of cooking oil	40,000,000	50,000,000
4.	100 bags of salt	2,000,000	3,000,000
<b>Total</b>		<b>54,500,000</b>	<b>68,000,000</b>

Required

Calculate Allan’s VAT liability

VAT liability = Output – Input Tax

Output Tax = Taxable Value on sale X VAT Rate

$$68,000,000 \times \frac{18}{100}$$

Output Tax = shs 12,240,000

Input Tax = Taxable value of purchases X VAT Rate

$$54,500,000 \times \frac{18}{100}$$

Input Tax = shs 9,810,000

VAT liability = Output Tax – Input Tax

$$= 12,240,000 - 9,810,000$$

VAT liability = shs 2,430,000

b) When VAT Inclusive given by the formula:

$$\frac{r}{r + 100}$$

$$r + 100$$

Where **r** is the VAT rate.

**Illustration**

If the rate of tax (r) = 18% then the tax fraction =  $\frac{18}{18+100} =$

$\frac{18}{118}$ . For example if the consideration (VAT inclusive) is Shs. 20,000, then VAT = 20,000 × 18/118 = Shs. 3,051.



Allan who deals in steel and hard ware his transaction during the month of August 2009

No	Items	Purchases (VAT inclusive)	Sales (VAT inclusive)
1	Ms plate	50,000,000	70,000,000
2	Iron bar	70,000,000	130,000,000
3	Angle bar	30,000,000	50,000,000
y4	Hollow Section	80,000,000	150,000,000
Total		230,000,000	400,000,000

Calculate the Vat liability

$$\text{VAT inclusive} = \frac{\text{VAT RATE}}{\text{VAT}+100} \times \text{VAT inclusive value}$$

$$\text{Inputs} = \frac{18}{118} \times 230,000,000 = \text{shs } 35,084,746$$

$$\text{Output} = \frac{18}{118} \times 400,000,000 = \text{shs } 61,016,949$$

$$\text{VAT liability} = \text{output} - \text{input}$$

$$61,016,949 - 35,084,746$$

**Shs 25,932,203**

### Computation of VAT Payable or Refundable

**VAT = output tax – input tax**

Where output tax is greater than input tax, the taxpayer pays the difference. Where input tax is greater than the output tax, the taxpayer claims the difference.

Buikwe Investments Ltd, a dealer in electronics made the following transactions during the month of December, 2017.

Goods	Purchases shs VAT inclusive	Sales shs VAT inclusive
<b>Refrigerators</b>	<b>30,000,000</b>	<b>50,000,000</b>
<b>Water pumps</b>	<b>25,000,000</b>	<b>29,500,000</b>
<b>Hot plates</b>	<b>20,000,000</b>	<b>26,300,000</b>
<b>Photocopiers</b>	<b>40,700,000</b>	<b>45,500,000</b>

- i) Using VAT output and VAT input approach, calculate Buikwe Investment's VAT liability for each good.
- ii) Calculate the total VAT liability.

- i) VAT liability for each good

$$\text{VAT liability} = (\text{Output} - \text{Input VAT}) \times \frac{18}{118}$$

$$\text{Refrigerators} = (50,000,000 - 30,000,000) \times \frac{18}{118} = \text{shs } \underline{3,050,848}$$

$$\text{Water pumps} = (29,500,000 - 25,000,000) \times \frac{18}{118} = \text{shs. } \underline{686,441}$$

$$\text{Hot plates} = (26,300,000 - 20,000,000) \times \frac{18}{118} = \text{shs. } \underline{961,017}$$

$$\text{Photocopies} = (45,500,000 - 40,700,000) \times \frac{18}{118} = \text{shs. } \underline{732,203}$$

ii) Total VAT Liability  
 $= 3,050,848 + 686,441 + 961,017 + 732,203$   
 $= \text{Shs. } \underline{5, 430,509}$

### More examples

Use the information below to determine the tax rates for the following tax payers

Tax payer	Income	Tax rates	Tax (liability)
Bwesigye	1,000,000		150,000
Innocent	800,000		80,000
Bossa	600,000		48,000
Ddungu	400,000		20,000

$$\text{Tax rate} = \frac{\text{tax liability}}{\text{taxable income}} \times 100$$

$$\text{Bwesigye} = \frac{150,000}{1,000,000} \times 100 = 15\%$$

$$\text{Innocent} = \frac{80,000}{800,000} \times 100 = 10\%$$

$$\text{Bossa} = \frac{48,000}{600,000} \times 100 = 8\%$$

$$\text{Ddungu} = \frac{20,000}{400,000} \times 100 = 5\%$$

Study the table below and answer questions that follow.

Tax Payer	Taxable income (shs)	Tax liability (shs)
<b>Okello Joseph</b>	<b>25,000,000</b>	<b>3,500,000</b>
<b>Akena Moses</b>	<b>30,000,000</b>	<b>6,300,000</b>
<b>Odong Charles</b>	<b>25,500,000</b>	<b>5,250,000</b>

a) Calculate the tax rate for each payer.

Tax rate for each payer.

#### **Akello Joseph**

$$\text{Tax rate} = \frac{\text{Tax Liability}}{\text{Taxable income}} \times 100$$

$$= \frac{3,500,000}{25,000,000} \times 100$$

$$= \underline{14\%}$$

### Akena Moses

$$\begin{aligned} \text{Tax rate} &= \frac{\text{Tax Liability}}{\text{Taxable income}} \times 100 \\ &= \frac{6,300,000}{30,000,000} \times 100 \\ &= \underline{21\%} \end{aligned}$$

### Odongo Charles

$$\begin{aligned} \text{Tax rate} &= \frac{\text{Tax Liability}}{\text{Taxable income}} \times 100 \\ &= \frac{5,250,000}{25,500,000} \times 100 \\ &= \underline{20.6\%} \end{aligned}$$

(b) Onzita earned the following incomes in shillings from the different sources for the year 2014.

Property income	800,000
Business income	3,000,000
Employment income	4,380,000
Expenses and losses for the year	3,000,000
Income that is	

Annual chargeable income (shs)	Tax rate (shs)
Not exceeding shs 2,820,000	Zero
Exceeding shs 2,820,000 but not exceeding shs 4,020,000	10% of the amount by which chargeable income exceeds shs 2,820,000
Exceeding 4,020,000 but not exceeding shs 4,920,000	Shs 120,000 + 20% of the amount by which chargeable income exceeds shs 4,020,000
Exceeding shs 4,920,000	Shs 30,000 + 30% of the amount by which chargeable income exceeds shs 4,920,000

### Calculate Onzita's

- i. Gross income  
Gross income = income from all sources – Tax exempt  
= (property income + Business Income + employment income)  
= shs (800,000 + 3,000,000 + 4,380,000) – shs 1,180,000  
= shs 8,180,000 – shs 1,180,000  
= **Gross income** = shs 7,000,000
- ii. Chargeable income  
Chargeable income = Gross income – total losses and expenses  
= shs 7,000,000 – shs 3,000,000 = shs 4,000,000
- iii. Income tax he paid  
Income Tax = 10% (4,000,000 – 2,820,000)  
Income tax = 10% of 1,180,000

Income Tax = shs 118,000

### **NON TAX REVENUE**

Non tax revenue in Uganda collected by URA includes stamp duty and other government non- tax revenue

Stamp duty. This is a duty payable on all the instrument of the schedule of stamps executed or signed in Uganda. Such instruments include transfer of land, Mortgages and agreements.

Stamp duty chargeable is transfer of land of 1.5 % of the value of land. The value of land is determined by the chief valuer of government in the ministry of lands. Stamp duty on mortgages is 0.5% of the value while stamp duty on agreement, letter of credit, caveat etc is at a fixed rate of shs 10,000 ie it doesn't vary with the amount in the agreements and others.

#### **Question 1**

Ms Nabunya purchased land at plot 25 Kampala Road for shs 5,000,000. The land has been valued by the chief government valuer at shs 7,500,000. You are required to compute the stamp duty payable

Solution

Stamp duty payable = 1.5 % X 7,500,000

**Stamp duty payable = shs 112,500**

#### **Question 2**

Ms Nalwoga Rachael and Ms Batambuliza Doris have signed a mortgage with Stanbic Bank Ltd for shs 10,000,000 they borrowed, calculate their stamp duty

Solution

Stamp duty = 0.5% X 10,000,000

**Stamp duty = shs 50,000**

### **Import duty**

On entering Uganda, goods are declared on the entry which is issued by URA on a prescribed format.

The assessment process would involve the following

- a) Determination of the customs value. This is based on cost insurance and freight value (CIF)
- b) Determination of tax payable using the tax rates as designed in the customs tariffs contained in the Customs External Tariffs (CEF)
- c) Examination of the goods and if satisfied with the valuer and documentation, the goods are released

Imported goods normally pay the following

- i) Import duty
- ii) Excise duty

iii) Value added tax

iv) Withholding tax

Environmental levy ( CIF X rates) – a levy imposed on old vehicles being imported into the country which are more than 5 years old from the date of manufacture.

Item	Current
Motor vehicles (excluding goods vehicles) which are between 5 -10 years	35 % of the CIF value
Motor vehicles (excluding goods vehicles) which are 10 years or more	50% of the CIF value

### Computation of customs duties and taxes

In January 2005 Uganda a member of EAC, a regional economic body referred to as the customs union comprising of Uganda, Kenya, Tanzania and today Rwanda. The EAC agreed to establish a common external tariff (CEF) for all goods and services outside the region and this has three tax bonds ie 25%, 10% and 0%

#### Question 1

Mr. Lwanga Hamza imports goods from Dubai at a CIF value of 100 US dollars, attracting an import duty of 10% in order to derive the custom duty, its necessary to convert US Dollars into Ugandan shillings by applying the current exchange rate. Assuming the current exchange rate is 1 US Dollar = 2,250

(i) assuming the trader had to pay VAT 18%, an excise duty 60% and withholding tax 6%

Calculate the total amount payable

#### Step 1

Convert CIF value in US \$ to Uganda shillings

Custom value = CIF X exchange rate

Custom value = 100 US \$ X 2,250

Custom value = shs 225,000

#### Step 2

Deriving import duty

Duty rate = 10 % of custom value

Import duty =  $\frac{10}{100} \times 225,000$

Import duty = shs 22,500

#### Step 3 Excise duty

Excise duty value = custom value + import duty

Excise duty value = 225,000 + 22,500

Excise duty value = shs 247,500

Excise duty = 60% Of excise duty value

Excise duty =  $\frac{60}{100} \times 247,500$

Excise duty = shs 148,500

#### Step 4 Value Added Tax (VAT)

Vat rate = 18%

VAT value = custom value + import duty + excise duty

VAT value = 225,000 + 22,500 + 148,500

VAT value = shs 396,000

$VAT = \frac{18}{100} \times 396,000$

VAT = shs 71,280

#### Step 5 withholding tax

Withholding Tax = 6% of custom value

$Withholding\ Tax = \frac{6}{100} \times 225,000$

Withholding Tax = shs 13,500

Total Tax payable = import duty + excise duty + VAT + withholding Tax

Total Tax payable = 22,500 + 148,500 + 71,280 + 13,500

Total Tax payable = shs 255,780

#### Question 2

Mr. Tugume imported a car from South Africa at USD 1,200 (the car is 6 years old). Freight charges to Mombasa were USD 800. Insurance to Mombasa was USD 200. Compute the taxes and duties payable by the owner (use rate 1 USD = 3,650 shs). Where import duty is 25%, Vat is 18% and withholding tax is 6%, environmental levy is 35%

Solution

Determination

CIF to Mombasa

Cost (1,200 X 3650) 4,380,000

Freight (800 X 3,650) 2,920,000

Insurance (200 X 3,650) 730,000

CIF 8,030,000

Taxes payable

Import Duty (25% of CIF) = 25% X 8,030,000 2,007,500

VAT (18%) (8,030,000 + 2,007,500) X 18% 1,806,750

Environmental levy (35% X 8,030,000) 2,810,500

WHT (6%) (6% X 8,030,000) 481,000

Total taxes 7,106,550

#### Question 3

**Mr. Mukasa** imported a used motor van from Japan in the month of June 2013. The motor van (FOB) was a Land Cruiser model 2000 invoiced at USD 12,000 free on Board (FOB) Tokyo, Japan. Shipment costs from Japan to Mombasa were USD 1,000 and insurance of USD 500 on board Mombasa.

**The additional information relating to the transaction includes**

- The ruling exchange rate as per Uganda Revenue Authority of 1 USD = shs 2,540.
- Import duty fee rate at 25%



- Environmental levy at 20% for used vehicles older than 8 years from the date of manufacture.
- VAT is 18%
- WHT is 6%
- Vehicle registration fees of shs 1,018,000

**Compute the necessary taxes payable at registration**

**Computation of CIF**

Cost	Ugandan shillings
FOB (1,200 X 2,540)	30,480,000
Shipment (1,000 X 2,540)	2,540,000
Insurance (500 X 2,540)	1,270,000
<b>CIF or customs value</b>	<b>34,290,000</b>

**Computation of taxes due**

Description	Amount for tax	Rate	Tax
CIF	34,290,000		
Import duty (34,290,000 X 25%)	34,290,000	25%	8,572,500
VAT (34,290,000 + 8,572,500) X 18%	42,862,500	18%	7,715,250
Withholding tax	34,290,000	6%	2,057,400
Environmental levy	34,290,000	20%	6,858,000
Vehicle registration fees			1,018,000
<b>Total tax and charges for registration</b>			<b>26,284,150</b>

**Question 4**

Kyagulanyi and sons ltd deals in the importation resell and sometimes export of sugar. During the month of December 2011, the company imported 1,000 bags of sugar from UAE of 50kgs per bag. The cost of the sugar was USD 35,714. The cost of transporting sugar from UAE to Mombasa was USD 4,000 and insurance costs of USD 400 from Dubai to Mombasa, Kenya and USD 200 from Mombasa to Kampala. The import rates of sugar were as follows

- Import duty – 75%
- Excise duty shs 25 per kg
- VAT – 18%
- Withholding tax – 6%. The company is exempted from WHT 6% on imports
- URA imports exchange rate for December 2011 was 1USD = 2,800 Uganda shillings

Tax is computed based on cost, insurance and freight (CIF) value. The freight value considered is up to Mombasa.

**Required:**

- Using the above information, compute the tax payable by Kyagulanyi and sons ltd to URA customs
- Uganda is a member of the East African community customs Union and common market. Currently, goods produced within any member state enjoy 0% import duty rate on importation. Suppose the sugar is imported by Kyagulanyi and sons limited was manufactured in Kenya, compute the tax that would be paid by Kyagulanyi and sons ltd on importation

## Solution

Description	USD	shs
Cost (35,714 X 2,800)	35,714	99,999,200
Insurance (400 X 2,800)	400	1,120,000
Freight (4,000 X 2,800)	4,000	11,200,000
CIF value	40,114	112,319,200

### Computation of taxes due

Import duty (75% X 112,319,200)		84,239,400
Excise duty ( shs 25 X 50kg X 1,000)		1,250,000
VAT value ( CIF + ID + ED)	197,808,600	
VAT (18%)		35,605,548
<b>Total taxes paid</b>		<b>121,094,948</b>

b)

description	USD	shs
cost	35,714	99,999,200
insurance	200	560,000
freight	-	-
CIF value	35,914	100,559,200

### Computation of taxes due

Import duty	-	-
Excise duty		1,250,000
VAT		18,325,656
<b>Total taxes</b>		<b>19,575,656</b>

## Sample Questions

- 1 a) Explain the principles of a good tax system
    - b) Why are taxes imposed on firms and individuals in Uganda?
  - 2 a) Distinguish between direct and indirect taxes
    - b) Explain the challenges facing taxation in Uganda
  - 3 a) Explain characteristics of a good tax system
    - b) Give merits and demerits of direct taxes
  - 4 a) Distinguish between tax compliance and tax incidence
    - b) Discuss the advantages and disadvantages of tax compliance
  - 5 a) Describe the factors that affect tax compliance in Uganda
    - b) What measures that can be undertaken to encourage the citizens of a country to pay tax
  - 6 a) Distinguish between impact of a tax and tax burden
    - b) Discuss possible solutions to the problems of taxation in Uganda
- c) Lucy has a flat in Kampala city, where she earns shs 72,000,000 as a rental income a year. Given that the rental tax rate is 20% provision for 20% and threshold is shs 2,820,000. Calculate (i) Lucy's rental tax (ii) Net rental income
- d) kiyenge ltd is a retailer dealing in domestic appliances. In June 2014 he purchased appliances worth shs 7,500,000 exclusive of VAT. The company sold the same at shs 11,000,000 also exclusive of VAT.

## Required

- a) Determine the value Added

b) Determine the VAT payable or claimable.

e) Basajjakambwe enterprises purchased stationary worth shs 600,000 and incurred rent of shs 2,600,000 in May 2010. He made sales of shs 790,000 in the same month. All figures were VAT inclusive.

### Required

Determine VAT payable / claimable.

### Question

a) **NALUBEGA SOPHIA** owns 12 double roomed houses in Ndejje from which she collects shs 400,000 from each on a monthly basis given 20% the rental income tax rate and shs 2,820,000 as threshold. Help her to.

#### Calculate

- i. Net chargeable rental income
- ii. Rental tax liability

b) **Mukasa** a wholesaler dealing in the supply of generators bought 5 generators at shs 59,000,000 and sold all of them at shs 118,000,000 all values are VAT inclusive. Using a VAT rate of 18%. Calculate

- i. VAT paid to Uganda Revenue Authority
- ii. The total cost of the generator VAT exclusive
- iii. Give four principles of a good tax system.

### Question

Muwonge a cotton ginner sold 10 bales of cotton to Nyanza textile at shs 10,000,000. Nyanza textiles produced bed sheets out of the cotton and sold them to Merowoma ltd (a wholesaler) at shs 17,500,000. Merowoma ltd sold to Meme Joy (a retailer) at shs 22,500,000. Meme Joy sold all the bed sheets to various customers and the total sales were shs 30,000,000.

N.B: all figures are VAT exclusive and the VAT rate applicable is 18%.

### Required.

- a) Determine the total VAT payable through the process / trial.
- b) Compare your answer with the VAT Meme joy (the retailer) collects from her customers.

### Question

KAMWESIGYE is a trader in Ntinda. His business is VAT registered. The following transactions appeared in her books for the Months of January 2016.

No.	PRODUCTS	PURCHASES (Shs )VAT Exclusive	SALES (Shs) VAT
1	Apples	4,000,000	9,000,000
2	Pineapples	4,500,000	6,500,000
3	Pawpaw	9,000,000	14,000,000
4	Mangoes	8,000,000	12,000,000
5	Oranges	12,000,000	18,000,000
		<b>37,500,000</b>	<b>59,500,000</b>

- a) Use 18% as VAT rate. Calculate
- VAT paid by KAMWESIGYE on each type of product.
  - Compute VAT paid to URA.
- b) NAMUSOKE is an employee of an NGO and she earns Shs 8,000,000 per year. The company uses monthly pay tax rates below to calculate PAYE deductions.

MONTHLY CHARGEABLE INCOME (Shs)	RATE OF TAX
0 – 235,000	NIL
235,000 – 335,000	10% of the amount by which chargeable income exceeds Shs 235,000
335,000 – 410,000	Shs 10,000 plus 20% of the amount by which chargeable income exceeds Shs 335,000
410,000 – 10,000,000	<ol style="list-style-type: none"> <li>Shs 25,000 plus 30% of the amount by which chargeable income exceeds shs 410,000</li> <li>Above Shs 10,000,000, charge additional 10%</li> </ol>

Calculate NAMUSOKE's monthly PAYE deductions.

- c) BUKIRWA owns a house in Kamwokya town where she earns rental income of Shs 28,000,000 a year.
- Use 20% as provision for expenses and losses of the total rental income
  - Use Shs 1,560,000 as Tax Threshold
  - Use 20% as rental income tax rate.
- Calculate.
- Chargeable rental income.
  - Rental income tax.
  - Net rental income.
- d) State two reasons for non-tax compliance in Uganda today.

### Other Trial numbers

- Assuming Adyebo imports soda from South Africa at a CIF value US \$ 1,000 attracting 25% import duty, 60% excise duty, VAT of 18% and withholding tax 6%. The current exchange rate is Ug. Shs 1747.64. compute the ;
  - import duty
  - excise duty
  - Value Added Tax
  - withholding Tax
  - Total tax payable
- Ms. Kato a trader in Kikubo – Kampala imports Polythene bags from China. The CIF value for the goods is US \$ 5,000. Polythene bags attracting an import duty of 25%, Excise duty 50%, VAT 18% and withholding Tax 6%.  
Required  
What would be taxes payable for the polythene bags given that the exchange rate at the time of importation is Ug. Shs 1765 to 1 US Dollar?

3. Malcolm industries are manufacturers of drinking Straws. They import an item called high density polythene as their raw material. The CIF value for raw material is US \$ 20,000. High density polythene is 0% import duty, 18% VAT and exempted from withholding tax. The exchange rate is shs 1765 to 1 US Dollar.

Required

What are taxes on the raw materials?

4. (a) Distinguish between impact of a tax and tax burden  
 b) Discuss possible solutions to the problems of taxation in Uganda  
 c) Lucy has a flat in Kampala city, where she earns shs 72,000,000 as a rental income a year. Given that the rental tax rate is 20% provision for 20% and threshold is shs 1,560,000. Calculate (i) Lucy's rental tax (ii) Net rental income
5. You are an entrepreneur employing five workers who are entitled to allowances. List four examples of taxable employment allowances for your employees  
 b) In the month of July 2014, Joseph Mali had VAT exclusive transactions with VAT registered enterprises as follows:

Purchases	shs 1,800,000
Sales	shs 2,400,000

Calculate:

- i) VAT paid to Uganda Revenue Authority by Joseph Mali (use 18% as VAT rate)  
 ii) Total purchase price (VAT inclusive) paid by Joseph Mali  
 C) Sem, an employee earns a gross salary of shs 3,600,000 per year. The employer uses the monthly PAYE tax rate below to calculate PAYE deductions

	<b>Chargeable monthly Income</b>	<b>Tax rate</b>
1	Not exceeding shs 235,000	Nil
2	Exceeding shs 235,000 but not exceeding shs 410,000	10% of the amount by which chargeable income exceeds shs 235,000
3	Exceeding shs 335,000 but not exceeding shs 410,000	Shs 10,000 plus 20% of the amount by which chargeable income exceeds shs 335,000
4	Exceeding shs 410,000	Shs 25,000 plus 30% of the amount by which chargeable income exceeds shs 410,000

Required:

Calculate the annual amount of PAYE deductions for Sem

- a) Explain three negative effects of taxation on the business
6. There is a concern about tax evasion among entrepreneurs in your district. As a tax compliant entrepreneur, the district trade officer has requested you to address entrepreneurs
- i) Give the meaning of tax evasion  
 ii) Mention three examples of tax evasion practiced by entrepreneurs in your country
- b) The following VAT exclusive transactions were availed to you by VAT registered businesses in your community for the month of July 2014

- ✓ Musa bought goods worth shs 40,000,000
- ✓ Musa sold the same goods to Suba shs 58,000,000
- ✓ Suba sold the same goods to Mweso the retailer for shs 70,000,000
- ✓ Mweso sold the goods to the final consumer for shs 84,000,000

Required:

Using the VAT rate of 18%

- (i) Compute for the entrepreneurs the VAT chargeable for the value added at each stage
- (ii) Advise Mweso on the gross sales value for his goods to the consumer

7. (a) Differentiate between Direct tax and Indirect Tax
- (b) Give two examples of each in 7 (a) above
- (c) State two advantages of Value Added Tax (VAT)
- (d) Jose is a Ugandan citizenship employed in Uganda. He earns shs 800,000 as gross pay per month.

**Required**

Use the income tax details below to calculate the Pay As You Earn (PAYE) chargeable to Jose per month

Chargeable monthly Income	Tax rate
Not exceeding shs 235,000	Nil
Exceeding shs 235,000 but not exceeding shs 410,000	10% of the amount by which chargeable income exceeds shs 235,000
Exceeding shs 335,000 but not exceeding shs 410,000	Shs 10,000 plus 20% of the amount by which chargeable income exceeds shs 335,000
Exceeding shs 410,000	Shs 25,000 plus 30% of the amount by which chargeable income exceeds shs 410,000

(d) In the month of May 2016, Charles Odoi bought goods for shs 6,400,000 (VAT Exclusive). He sold these goods for shs 10,800,000 (VAT Exclusive). These transactions were carried out with VAT registered business.

**Required; Using 18% as VAT rate, calculate VAT;**

- i) paid by Charles Odoi on purchase
- ii) received by Charles Odoi on sales
- iii) paid by Charles Odoi to Uganda revenue Authority

**Question**

Mujama is a car dealer in Kampala, Uganda and has imported 5 vehicles from Japan each at a cost of USD 1,240 cost, insurance and freight (CIF) to Mombasa and the exchange rate during the date of transaction was USD 1 to shs 3,650.

**Assuming the following rates for:**

	Rate (%)
Import duty	25
Withholding tax	6
Value added tax	18
Environmental levy	35

Required

Compute the taxes payable by Mujama for the 5 vehicles he imported from Japan.