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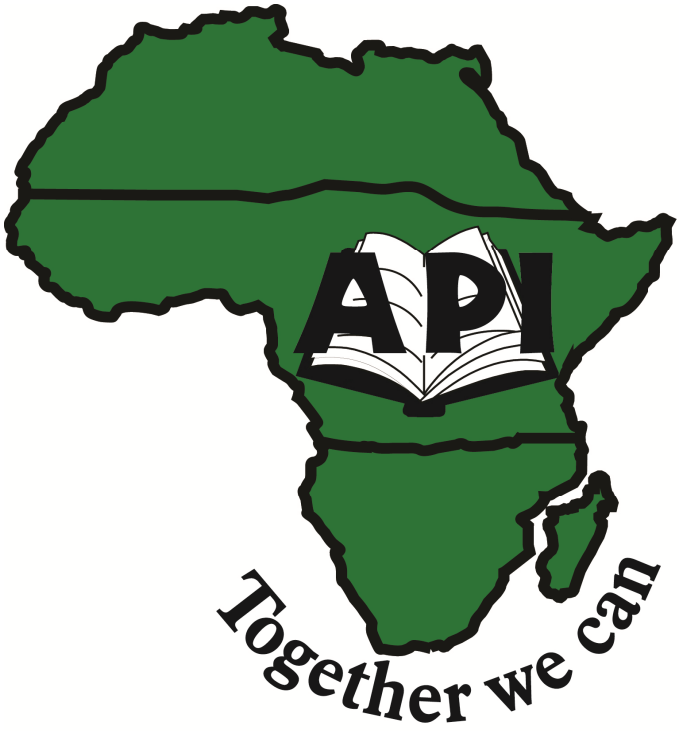


# BUSINESS ADMINISTRATION & MANAGEMENT TERM THREE STUDENT'S MODULES (BAM)

## Contents




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| Course Name | : Elements of Taxation |
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**Course Description**
The Course details from the definition and meaning of a tax, common features in a tax system, principles of taxation, classification of taxes, budgetary & fiscal measures, tax accounting principles, dividend income, international agreements, capital expenditures, insurances business.

**Course Objectives**
- To help students analyze the impact of tax on economic growth, wealth distribution & Gross Domestic Product (GDP).
- To improve students' knowledge on understanding several controversies in the tax structure.
- To develop students' capacity to compute tax obligation to respective individuals.
- To provide students with opportunity to understand several principles of taxation relevant to their economies.

**Course content**
**Introduction**
- What is a tax
- Public Finance
- Common features in any tax system
- Different types of taxes
- Purposes of taxes
- Principles/Cannons of taxation
- Taxable capacity
- Incidence of a tax and tax shifting
- Classification of taxes
- Advantages and disadvantages of different types of taxes

**Budgetary and Fiscal Measures**
- Definition of a budget
- Types of budgets
- Main sources of revenue
- What is included in expenditure
- Budgetary policy
- Fiscal policy
- Instruments of fiscal policy
- Effects of taxation on production and distribution

**Tax Accounting Principles**
- Forms of accounting principles
- Methods of accounting
- Foreign currency debt gains and losses
- Special rules for consideration received
- Taxation of partnerships and partners

**Dividend Income**
- Meaning of dividend income

- Withholding of a tax at source
- Withholding as a final tax
- Payment of tax with held
- Small business tax payer rates
- Foreign employment income
- Tax on international payments

**Other related topics;** International agreements, Capital expenditure, Insurance Business etc

**Mode of delivery** Face to face lectures, Personal study and tutorials
**Assessment**
**Coursework** 40%
**Exams** 60%
**Total Mark** 100%

**Introduction**

A tax is a compulsory levy by the gov't on incomes of individuals or corporations or companies. Taxation is part of public finance and its's on é of the ways inch gov't raises revenue to finance its activities.

The gove't is expected to carry out some activities as part of its social sus.2 é public. Such activities include:-

1. Maintaining internal security and external defence and to carry out general administration. Such expenditure relates to:-
   (a) Cost of police and judicial maintenance ie maintenance of law and order
   (b) Cost of armed forces/navy against external aggression.
   (c) Cost of provincial or general administration of law and order.

2. Providing infrastructure and communication such as construction of roads, railways, harbours as well as electricity and telephone works, television and radio system etc.
3. To provide social basic services e.g medical services, education, water ss and sewerage, sports and casual activities and entertainment information.

4. To participate in the production and marketing of goods e.g through parastatals, guaranteeing markets, protection and legal procedures from competition.
5. Influencing and guiding the level and direction of economic activities through various regulations e.g monetary and fiscal policies.
6. Redistribution of income and wealth through taxation and public spending e.g by taxing the rich at a high rate án é poor or providing basic needs 2 é poor e.g free education.

**PUBLIC FINANCE**

This involves aunts di are received by é gov't from all é different sources e.g fees.

(a) Fees: These are amts received 4 any direct sv rendered by é gov't central or local authority e.g National Park fees, airport fees, parking fees, television and radio fees.
(b) Prices: Ese are é amts received by é central or local authority for commercial svs e.g r/way fare, postage & revenue stamps, telephone charges etc, radio advertisements.

(c ) Fines and penalties: If individuals or firms don't observe laws of the country, fines and penalties are imposed on them and éry am part of gov't y. Land rent & rates are paid to local authority on basis of
aq source of government revenue.

(d) State property. Some land, Forests, mines, national parks are government property. The y át arises from such property is also public revenue. The y will arise from payment of rent, royalties or sale of the produce, also from tourism.
(e) Specific assessments: Ese are charged 4 specific purposes. The government may charge a specific assessment from residents of a place area 4 the purposes of establishing a hospital in that area.

(f) Taxation: Taxes are the most important source of public finance. A tax can be defined as an involuntary payment by tax payer account involving the direct payment of goods and services in return. The tax payer can however enjoy goods and services by the government like other citizens ..... and preference or discrimination.

**Common features in any tax system**

1. Taxing authority : This is the authority of the power that impose tax e.g Central or local government.
2. The payer; Person of entity ... pays the tax e.g an individual, a ...., business firm or other organisations.
3. A tax: The amount ..... paid ..... Taxing authority directly by cash payment or indirectly through purchase of commodities.

**Different types of taxes**

i) **INCOME TAX**: This is a tax that is imposed on the annual gains /profits earned by companies or
individuals.

(ii) **VALUE ADDED TA X (VAT):** a TAX IMPOSED ON SALE OF GOODS AND SERVICES . Replaced sales Tax ..... effect from 1st January 1990.
(iii)
(iv) **SALES TAX:** Is a tax imposed on the sale of commodities. However, this was replaced by VAT.

(iv) **CUSTOMS DUTY:** This is a tax imposed on imports and exports of commodities**.**

(vi) **STAMP DUTY:** Tax imposed on transfer of property ie **CORPORATION TAX**, Imposed on gains of a company.

(vii) **LAND RATES AND RENT**: tax paid on property. Rent's paid to the central government as leases and rates

**PURPOSES OF TAXES**:

Raising revenue's not the only purpose for taxes. Taxes are levied for various other purposes and they include:-

1. Raising revenue for the government: The income so earned from such taxes is used to maintain peace and security, these social welfare, complete development projects e.g roads, schools hospital, power stations etc.
2. Economic stability: During inflation, the government imposes more taxes in order to discourage the unnecessary expenditure of the individuals. During deflation on the other hand, taxes are reduced in order to encourage individuals to spend more on goods and services. This ....in taxes or ..... in taxes thus leads to maintenance of economic stability.
3. Protection policy: The government has a policy of protecting some industries, high taxes are thus imposed on commodities imported from other countries to compete within them selves thus making them more expensive.
4. Social welfare (check on consumption of harmful food) some commodities like tobacco, cigarettes and alcoholic drinks are taxed highly to make them more expensive and thus out of each of as many people as possible.

5. Fair distribution of income: The rich taxed at a high rate than the poor and the amounts obtained are
   spent on increasing the poor's welfare. In so doing, taxes help to achieve a fair distribution of income
   in the country.

6. Allocation of resources;

   The may remove taxes on some industries or impose low rates of taxes 2 encourage allocation of
   resources in particular direction.

7. Increase employment: Funds collected from taxes can be used on programmes like roads, drainage,
   public buildings etc. Such projects and programs provide more employment opportunities to the
   citizens.

**POWER TO TAX**

The laws of the country will authorise the government (central and local authorities) to levy taxes. Taxes imposed are legally enforceable and must be paid by all those individuals and business that come concerning the jurisdiction of the taxing authority. Fines and penalties are imposed for failure to pay. The Parliament

and local councils have the power to pass laws and by-laws respectively. The Central government and local authorities both have the power to impose taxes.

## PRINCIPLES/CANNONS OF TAXATION

The principles of an optimum tax system may be one of the following:-

1. **Simplicity:**

A tax system should be simple enough to enable a tax payer understand it and be able to compute it him/herself. A complex and difficult to understand tax system may produce law yield as it may discourage a tax payer's willingness to declare income. It may also create administrative difficulties and hence inefficiency.

2. **Economy (administrative efficiency):**

A good tax system should be capable of being administered efficiently. The system should produce the highest possible yield at the lowest possible cost both to the tax authorities and to the tax payers.

3. **Neutrality**

This is the measure of the extent to ……. Tax avoids distorting the workings of the market mechanism. A neutral tax system should market affect the tax payer's choice of goods or services to be consumed.

4. **Certainty**

A tax should be formulated so that the tax payers are certain of how much they have to pay and when Tax shouldn't be arbitrary. ……. Should be readily available information if tax payers need it. Certainty's essential in planning and uprising of certain biz investments. It's also important in designing remuneration packages.

5. **Conviniencing**

The method and frequency of payment should be convenient to the tax payer e.g PAYE. This may discourage tax evasion e.g it may be difficult for tax payers to pay a lump sum at the end of the year.

6. **Productivity**

A tax should be productive in …… sense that should bring large revenue adequate for the government. However, …..shouldn't tax people heavily to adversely affect their efforts.

7. **Diversity/Comprehensiveness**

……. Should be variety in taxation. A …… of few taxes will neither meet the revenue requirements of the state nor satisfy the cannon of equity. ……. should be a variety of direct and indirect taxes.

8. **Flexibility**

Flexibility in taxation is different from elasticity. It means that there should be no rigidity in taxation.... Tax system can be .... To meet the revenue requirements of the state. On the other hand, elasticity in taxation means that the revenues can be ..... under the prevailing tax system. However, there can't be flexibility ..... elasticity.

9. **Equity:**

A..... tax system should be based on ability to pay. Equity's ..... now the burden of tax is distributed. The tax system should be arranged so as to result in the minimum possible sacrifice. People ..... high incomes pay large amounts of tax. People with similar circumstances should be given similar treatment and those ..... Similar treatment be given circumstances.

..... Are 3 alternative principles that may be applied in the equitable distribution of the tax burden ie:-

(a) Benefit Principle or Insurance theory or Quid Pro Quotheong.
This dictates that tax's apportioned to individuals according to the benefit they derive from the government activity and spending. The government is regarded as a market and taxes are treated as payment for goods and provided by the state.

**Its criticisms**

The provision is inadmissible as it goes .....the aims of taxation which are also duties to the government the market economy ..... redistribution of income.
In instances of road users, whom may pay road licences for use of roads, they may not obtain the benefit of such payment if the revenue so raised isn't applied to the .....of road users.

(b) Ability to pay principle

This is concerned ..... the equitable distribution of taxes according to the stated taxable capacity of an individual or some stated criterion of ability to pay.

**Its criticism**

-The difficulty in application of this theory is in determining the criterion of ability to pay. Three prepositions have been advanced ie:

i) Income
ii) Wealth
iii) Expenditure

A wealth based tax may be useful in redistribution of income and wealth but may not provide sufficient revenue by itself.

An expenditure tax ensures that income and wealth are taxed when they are spent. Most tax regimes would thus partly be income based and partly expenditure based.

c) Cost of service principle or Purchase Theory:

This is the cost to the taxing authority of services rendered to individual tax payers. Tax is a payment for ..... there is no ..... pro quo' between tax authority and tax payer. The payer doen't necessarily have to receive services and goods equivalent to the tax paid. For this reason, the principle can't be applied to services provided out of the proceeds of taxes e.g taxes e.g police and judiciary. Rather, it may be applied for such services as postal, electricity or water ..... where the pxs are fixed.

## TAXABLE CAPACITY

This refers to the maximum tax..... may be collected from a tax payer ..... producing undesirable effects on him/her. A good tax system ensures that people pay taxes ..... to the extent they can afford. ..... Are to aspects of taxable capacity:-

1. **Absolute taxable capacity**:

It's measured in relation to the general economic conditions and individual position e.g region or industries to which the payer belongs. ..... Individual having regard to his circumstances and the prevailing economic conditions pays more tax ..... he should, his taxable capacity will have exceeded in the absolute sense.

2. **Relative taxable capacity**

Measured by comparing absolute taxable capacities of different individuals or communities.

## TAX IMPACT

This means person on whom a tax is imposed and who has to bear the burden of a tax. Here taxes may be direct or indirect.

## TAX BASE

This is the object upon which the tax is levied and to which tax rates are applied e.g for ...tax, the base is ...., property tax - property; sales tax - px of the goods export tax -value of .... And .... Tax - value of ....

## TAX INCIDENCE

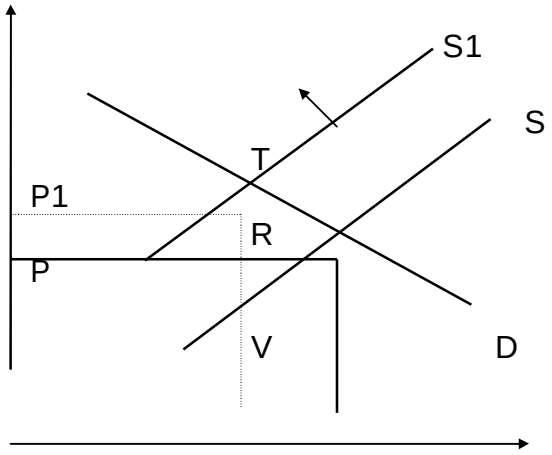
Refers to the direct money burden of the tax ie who ultimately pays the tax.

Importance of tax incidence.
A good tax system must be designed having regard of the impossible incidence of the taxation. A tax imposed on cigarette sales in order to discourage smoking and hence

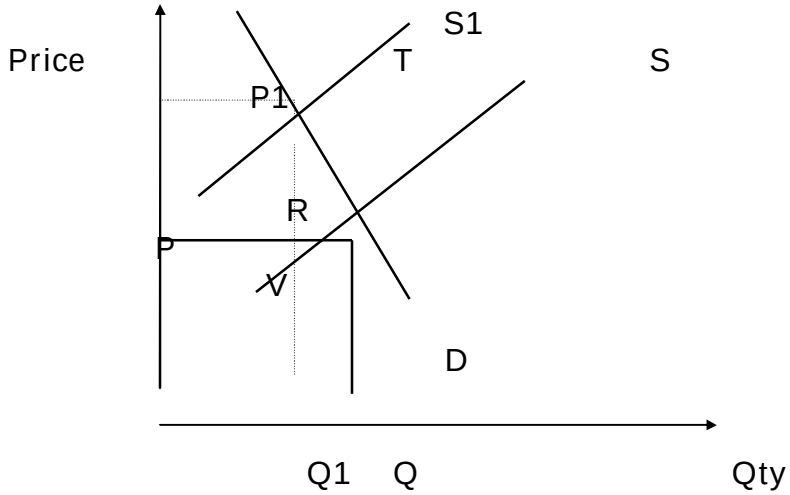
cut expenditure on health must be ascertained whether the smokers will be affected adversely by the tax.

## INCIDENCE OF A TAX AND TAX SHIFTING

Tax ……. The transfer of the burden of a tax from a person on whom it's legally imposed to another person. Tax shifting in the eyes of the taxing authority is the governing principle for levying of taxes. Tax authorities will always look at the .... Elasticity of .... And ..... ..... levying a tax.
Hypothetical example of tax incidence.




Price elastic demand curve means that the producers will respond more in the event of an increase or decrease in price. In the diagram above , the original equilibrium position is the intersection of the demand curve D and supply curve S at price P and quantity Q. The imposition of a tax will shift the original supply curve S1. The resultant price P1 will emerge as P1 that the intersection of the sully curve S1 and demand curve DD. New quantity will now be Q1. The tax has caused an increase TV in price. TR will be borne by the buyer and RV by the seller/supplier. For price elastic goods, a smaller portion of the tax is borne by the buyer than by the seller



Price inelastic demand curve means producers will respond less proportionately too demands in the price. Examples of goods ... inelastic demand are salt, cigarettes etc. In the diagram above, original eg ... positions the intersection between the demand curve D and supplies curve w S at price P and quantity Q. When a tax is imposed, supplies curve will shift from S to S1. The resultant price P1 is the intersection between demand curve D and suppliers curve S1. The new quantity will be Q1. The tax causes an increase in price TV. TR will be borne by the buyer & RV by the seller. For price inelastic goods, TR > RV hence a bigger proportion of the tax is borne by the buyer than by the seller.

## CLASSIFICATION OF TAXES

Taxes may be classified in various ways ie:-

1. Direct or indirect taxes
2. Progressive, Proportional or Regressive taxes.

## DIRECT TAXES

A direct tax is one whose impact and incidence are on the same person. Tax has impact on the person on whom it is legally imposed. The incidence of a tax is on the person who ultimately pays the tax whether or not .... Legally imposed on him. Thus, a direct tax is one which is paid (incidence) by the person on who ... legally imposed (impact) e.g Income tax and corporate tax.

### Indirect taxes

An indirect tax is one whose impact is on one person but paid partly or wholly by another person. An indirect tax can be shifted on passed on as opposed to a direct tax which can't be passed on e.g sales tax, excise tax, excise tax etc. Taxes are also classified according to the marginal tax rates which the level of income and they include:-

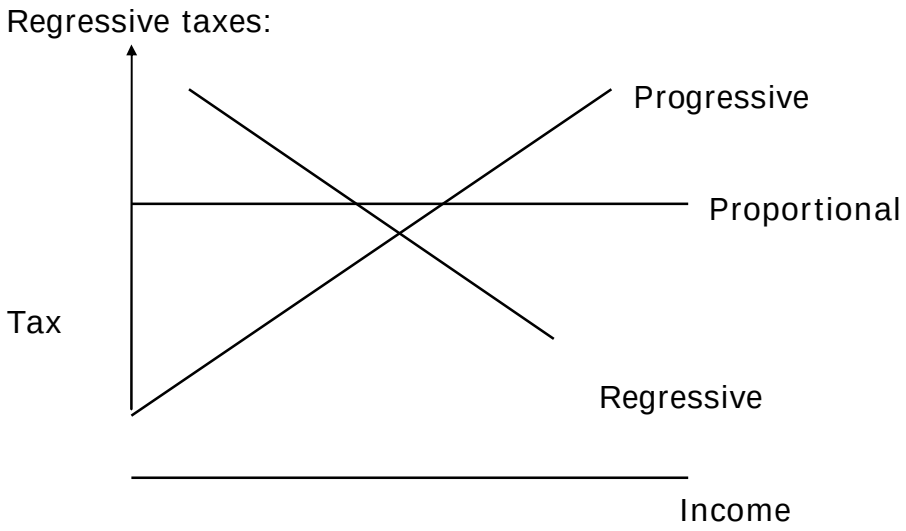
## PROGRESSIVE TAX

A proportional tax is a tax where the same rate is applied to all tax payers e.g corporate tax.

## REGRESSIVE TAX

Is one where the tax rate falls as income rises. Here, the poor are called upon to make a greater sacrifice compared to the rich.

Diagrammatic illustration of proportion, progressive taxes




A progressive tax is preferred for its redistribution of it's also a productive tax since it yields more than the proportional tax. It's also more economical since the cost of collection doesn't increase with the rate of tax. It also brings about equality of sacrifice among tax payers. The richer one's the less sacrifice felt in paying the tax. It tries to reduce the inequality as higher burdens fall on high income earners.

**Advantages of direct taxes.**

1. ..... economical in collection e.g the tax is collected through ..... who are 'unpaid tax collectors.'
2. Direct taxes are progressive and fall equitably on tax payers having regard on their relative abilities to pay.

3. .... Are more certain in quantity as opposed to indirect taxes.
4. ..... usually less inflationary than indirect taxes ... are imposed on goods hence a rise in prices of goods.

Disadvantages of direct taxes.

a) Ey're costly to administer. People who are liable for tax would be assessed independently depending on their taxable capacity. Ey've fewer collection points hence administrative inefficiency.

b) Ey're not flexible hence not adapted to differing indirect taxes.

c) Higher levels of tax reduce the incentive to save on the other hand, higher level's of indirect taxes may encourage saving when goods become unaffordable and the purchasing of those goods is delayed in the hope that their prices will reduce later.

d) Some .... Of taxes are paid annually as a lump sum and thus, it may be difficult for tax payers to find the lump sum. This gives opportunity for tax evasion by submission of fraudulent returns.
e) Indirect taxes as opposed to direct taxes lack announcement (awareness) effect. People are often un aware that they are paying tax or even now much they are paying. Direct taxes, have a defect of ... and thus affect effort and enterprise.

## BUDGETARY AND FISCAL MEASURES

Ey're adopted by the government to maintain economic stability in the country and accelerate the rate of economic growth.

### Budget

A statement which consists of revenue and expenditure estimates of a government in one particular year. If government > revenue, then we get a Deficit Budget. If revenue expenditure its known as a surplus Budget. If revenue = expenditure its a Balanced Budget.
Budgets may be of two types ie:
a) Revenue Budget
b) Capital Budget

Revenue budget relates to normal income & expenditure items whole capital budget relates to development projects. In revenue budgets, the main sources of revenue are:-
i) Customs and excise duties
ii) Income and corporate taxes.
iii) Income from state property and fines.

**Expenditures include the following**:-
-Defence
-Administration
-Education
-health
-Cost of tax collection.

Major sources of income for capital budgets are:-
a) Loans and grants obtained by the government.

b) Main expenditures on capital budget include:

1. Development projects
2. Establishment of new industrial agricultural projects.

### Budgetary policy

These are measures designed to clearly attain the set budgetary objectives. Budgets are annual plans designed by the government to achieve economic growth, equitable distribution of income, capital accumulation, distribution of income and provision of government services.

## FISCAL POLICY

This is a policy according to ..... government uses its ... expenditure and revenue programmes to produce desirable effects and avoid undesirable effects on National ..... and ..... It's combination of deliberate .... In expenditure, revenue & tax programmes & debt night policy. The main objectives of fiscal policies in LDOS is to promote investment , to maintain stability & reduce extreme inequality. The main objective's thus are:-

a) Achievement of desirable price level
b) Achievement of desirable consumption level
c) " " " e+ level
d) " " " distribution

The main objective of fiscal policy to attain desirable level of consumption. Fiscal policy in LDCs is used:-
-To increase the rate of investment by checking consumption.
-To encourage the flow of investment .... Channels which are most desirable from the... of view of society.
-To regulate the flow of purchasing power in accordance ..... the requirements of the plan.

Instruments of fiscal policy.

a) Public revenue
b) Public expenditure
c) Public debt.

When a country faces .. a threat of inflation, it raises its taxes & cuts expenditure. On the other hand, during deflation, the government increase expenditure & reduces taxes so that ... can be decreased by increasing effective ad.

Economic stability can be maintained by spending public loans on development programmes.
Effective tax policy for an LDC

A developing countries must have different tax policies from a developed one ....:-
a) Its primary objective's to achieve a high level of economic development & not .... Economic stability.
b) Greater attention has to be paid to maxi..... of revenue and not ability to pay or equity.
c) It has to follow a policy of active intervention in economic affairs.
d) It aims at accelerating economic growth and not merely reducing economic inequality.

Effects of Taxation

The quality of a tax system will depend on the effects produced . The best tax system is one which produces the least undesirable effects. Effects can be observed under:-

i) On Production
ii) On distribution

Effects on plan.

……. Are two aspects of effects on production and they are:-
-Ability to work & save
-Desire to work and save.
Taxes have adverse effects on the ability to work if they lower efficiency of the workers. A person's ability to work will be reduced by taxation which reduces efficiency. The ability to save's reduced by all taxes on those who have any margin of income out of which saving's possible. This happens when a person maintains the same standard of living after imposing or increasing a tax and doesn't reduce the expenditure on goods accordingly.

Taxes especially the direct type are argued to be a disincentive to work. It's argued that if taxes are …, this will increase incentive because people will receive more from their efforts.

Illustration of the desire to work due to tax
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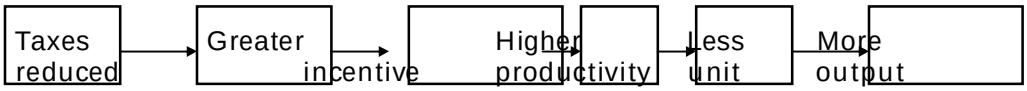


Greater incentive will lead to hard work and higher productivity & explanation of the economy to create more ….. This will lead to a rise in the level of real NY and high yield from taxation. On the otherhand, it may be argued that an increase in taxes will induce people to work harder to rise disposable ….. It follows thus that increase in taxation may or may not be a disincentive to work. The effect upon the tax payer's desire to work & save will depend partly on the nature of the tax and partly on the individual's reaction ie:

a) **Nature of the tax:**

An unexpected or temporary tax might not have any effort at all and will not continue in the future thus, the effect on the desire to work is negligible.

b) Nature of individual reaction to taxation

This is largely governed by the elasticity of his demand for income, in terms of effort and sacrifice which he makes in order to obtain his net …. Increased taxation … the net … earned although the efforts and sacrifice remain the same if the elasticity of his demand for … is small, he will desire to work harder.

**Effects on distribution**

A person who owns ... or by himself embodies ... which in their actual ... are subject to taxation may ... to escape taxation by diverting his resources to over ... in which they will either be untaxed or not taxed heavily. A tax's concerned to have adverse effects if it diverts ... from their natural channels. A tax's considered to produce desirable effects on distribution if it helps to encourage the slow of resources along their natural channels. Taxes levied for this purpose are called redistributive taxes.

**Deductions allowable against income**

**(i) Expenses of deriving income**

All expenditures and losses incurred by the person during the year of income to the extent to which the expenditures or losses were incurred in the production of income included in gross income.

Any loss on disposal of assets incurred by the person on the disposal of a business asset during the year of income whether or not the asset was on revenue or capital account.

The following are however not allowable against income except in so far as it is provided in the Act.

any expenditure or loss incurred by a person to the extent to which it is of a domestic or private nature i.e.

cost incurred in the maintenance of the person and the persons' family or residence.

the cost of commuting between the person's residence and work..

The cost of clothing worn to work, except clothing which is not suitable for wearing outside work..

The cost of education leading to a degree whether or not it is directly relevant to the person's employment or business.

any expenditure or loss of a capital nature or any amount included in the cost base of an asset (amount paid for asset).

any expenditure or loss which is recoverable under any insurance, contract or indemnity.

income tax payable in Uganda or a foreign country.

any income carried to a reserve fund or capitalized in any way.

the cost of a gift made directly or indirectly to an individual where the gift is not included in the individual's gross income.

any allowance given to or a reimbursement or discharge of expenditure incurred by our employee in respect of employee's housing and any expenditures incurred in respect of housing provided to an employee.

any fire or similar penalty paid to any government or a political sub division of a government for breach of law.

a contribution or similar payment made to a retirement fund either for the benefit of the person making the payment or for the benefit of any other person.

a premium or similar payment made to a person carrying on a life insurance business on the life of the person making the premium or on the life of some other person.

the amount of a pension paid to any person

any alimony or allowance paid under any judicial order or written agreement of separation.

(ii) Meals refreshments and entertainment expenditure

a deduction is allowed for expenditure incurred by a person in providing meals, refreshment or entertainment in the production of income included in gross income but only where ;

the value of meals, refreshment or entertainment is included in the employment income of an employee or is excluded owing to the fact that it is provided on equal terms to all workers.

the person's business includes the provision of meals refreshment and entertainment and the persons to whom the meals refreshment or entertainment have been provided have paid an arm's length consideration for them.

(iii) Bad debts

a person is allowed a deduction for the amount of bad debt written off in the person's accounts during the year of income.

if the amount of the debt claim was included in the person's income in any year of income or

if the amount of the debt claim was in respect of money lent in the ordinary course of business carried on by a financial institution in the production of income included in gross income.

(iv ) Interest

This is allowable in respect of a debt obligation to the extent that the debt obligation has been incurred in production of income included in gross income.

Repairs and minor capital equipment (loose tools)

A person is allowed expenditure for repairs of property occupied or used by the person in the production of income and in acquiring a depreciable asset with a cost base of less than 5 currency points (one currency point = 20,000/=)

Depreciation of depreciable assets as per the Act.

Start up costs - a person shall be allowed a deduction of an amount equal to 25% of the amount of the expenditure in the year of income in which the expenditure was incurred and in the following 3 years of income.

Costs of intangible assets - these are allowed on the gross income of a person after ascertaining their useful life. The annual amount is calculated according to this formula

$$\frac{A}{B}$$

Where A = amount of expenditure incurred
B = useful life of the asset in whole years

Scientyic research expenditure – allowable deduction on gross income of a business whether incurred by business or a contribution to a scientyic research institution for purpose of developing a person's business but does not include

expenditure for acquisition of a depreciable or tangible asset
" for " of land or buildings
" for the purpose of ascertaining the existence, location, extent or quality of a natural deposit

Training expenditure - employer's allowed a deduction for expenditure on training or tertiary education not exceeding in the aggregate five years on a citizen or permanent resident of Uganda other than associate of employer who is employed by the employer in a business.

Charitable donations

A person is allowed a deduction of a gift made to an organistaion belonging to "exempt organisations" class and is either an amateur sporting association or a religious charitable or educational institution of a public character.

The value of the gift of property is the lesser of

the value of the property at the time of the making of the gift.
The consideration paid by the person for the property. However, the amount of deduction allowed shall not exceed 5% of the person's chargeable income before allowable deduction.

Farming - the expenditure on horticultural establishments and farm works deductions as per the Act.

Carry forward losses – any "assessed loss" for the previous year of income shall be carried forward & deducted from following year's income. Applies separately to sources in Uganda

Assessed farming loss may not be deducted from any other income other than farming income.

The amount of an assessed loss c/f shall be reduced by the amount or value of any benefit to the tax payer from a concession by a compromise with the creditors which reduces or extinguishes such liabilities, provided such liabilities arose from the production of income included in gross income.

N.B

A deduction relating to the production of more than one class of income shall be reasonably apportioned among the classes of income to which it relates.

Where a person derives more than one class of income, the deduction allowed in relation to charitable donations shall be allocated ratably to each class of income.

Where a tax payer has more than one class of loss, the reduction, in case of a concession or compromise by creditors, will be applied ratably to each class of loss.

**TAX ACCOUNTING PRINCIPLES**

A tax payer may apply in writing to use a substituted year, being a twelve month period other than the normal year of income.

He may also apply to commissioner to change his year of income from a substituted to the normal year of income or to another substituted year.

The commissioner may only approve such application if the tax payer has shown a compelling need to change the year of income in any of the above instances.

The commissioner may, by notice in writing, with draw the permission granted.

Where the year of income of a tax payer changes as a result of the above circumstances, the period between the last full year of income prior to the change and the date on which the changed year of income commences is treated as a separate year of income, to be known as the "transitional year of income."

## Method of accounting

This slid conform to generally acceptable accounting principles. Unless the commissioner prescribes, a tax payer may account for tax purposes on cash or accrual basis.

A tax payer may apply for a change in the method of accounting and the commissioner may approve only if he is satisfied that the change will clearly reflect the tax payer's income. The adjustments to items of income, deductions, or credit or to other items shall be made in the year of income following the change so that no item is omitted and no item is taken into account more than once.

Cash basis tax payer – here income is derived when it is received or made available and incurs expenditure when it is paid.
Accrual basis tax payer – here income is derived when it is receivable and expenditure incurred when it is payable.
Long term contracts - incomes and deductions are taken into account on the basis of % of the contract completed during the year.

Where in the year of income in which a long term contract is completed, it is determined that the contract has made a final year loss, the commissioner may allow the loss to be carried back to the preceding years of income and applied against the amount included in income over the period of the contract for these years starting with the one immediately preceding the year in which the contract was completed.
Trading stock – closing value of trading stock is the lower of cost or market value of trading stock on hand. Cash basis tax payers may calculate the cost of trading stock on the prime – cost or absorption cost method and for accrued basis, the absorption cost method is used. The relevant methods for stock valuation are either FIFO or average cost method.

Interest in the form of discounts, premium or deferred interest shall be taken into account as it accrues. However, where it is subject to w/tax, it shall be taken to be derived or incurred when paid.

## Foreign currency debt gains and losses

Gains arise from the disposal of an asset where the consideration received exceeds the cost base of the asset at the time of the disposal.

The amount of any loss arising from the disposal of an asset is the excess of the cost base of the asset at the time of disposal over the consideration received for the disposal.

A tax payer is treated as having disposed of an asset if the has been
sold, exchanged, redeemed, or distributed
transferred by way of gift
destroyed or lost
it may also include disposal of part of the asset.

The conversion of an asset from a taxable use to a non taxable use or vice versa is deemed to be a disposal and it's converted at a value equal to the market value of the asset at that time of the asset is also deemed to have been re acquired for a cost base equal to that same value.

A non resident person who becomes a resident person is deemed to have acquired all assets, other than taxable assets owned by the person at the time of becoming a resident for their market value eat that time and vice versa where person becomes non resident.

Special rules for consideration received.

Where consideration for an asset is paid in kind, the value should be the market value of that asset
Where an asset is disposed in a way other than by way of transmission of asset to a trustee or beneficiary on death the person disposing the asset (disposer) is treated as having received consideration equal to the greater of

- the cost base of the asset to the disposer at the time of disposal
- the fair market value of the asset at the date of disposal.

Where 2 or assets are disposed of in a single transaction, the amount to each asset is apportioned using the market values.
No gain or loss is taken into account in determining chargeable income in relation to :-

- transfer of an asset between spouses
- transfer of an asset between former spouses
- an involuntary disposal of an asset to the extent to which the proceeds are reinvested in an asset of a like kind within one year of the disposal.
- Transmission of an asset to a trustee or beneficiary on the death of a tax payer.

Miscelleneous Rules for determining chargeable income

Income joint outners :- Income or deductions relating to jointly owned property are apportioned among the joint owners in proportion to their respective interests in the property. Where such interests can not be ascertained , equal interests shall be deemed.

Valuation :- Value of any benefit in kind is the fair market value of the benefit on the date it is taken into account for tax purposes.

Currency conversion :- Where income involves amounts in other currencies, the amounts shall be converted to Uganda shillings at the bank of Uganda mid – exchange rate applying between the currency and the Uganda Shilling on the date the amount is derived, incurred or otherwise taken into account for tax purposes.

A tax pay may keep books of accounts in a foreign currency or use the average rate of exchange.

Indirect payments and benefits :- The income of person includes,

payment that directly benefits the person.
Payment dealt with as the person directs, which would have been income of the person if the payment had been made directly to the person.

Finance lease :- a lease of property is a finance lease if,

the lease term exceeds 75% of the effective life of the leased property.
the lessee has an option to purchase the property for a fixed or determinable price at the expiration of the lease.
The estimated residual value of the property to the lessor at the expiration of the lease term is less than 20% of its fair market value at the commencement of the lease.

The interest component of the lease is treated as interest expense incurred by the lessee and income derived by the lessor.

Recouped expenditure :- Where a previously deducted expenditure is recovered by the tax payer, it is deemed to be income for the year of recovery.

Persons Assessable

Taxation of individuals

Chargeable income of each tax payer is determined separately. Where a tax payer splits income with another person, the commissioner may adjust the chargeable incomes of both payers to prevent any reduction in tax payable as a result of the splitting of income.

A tax payer is treated as having attempted to split income where

the tax payer transfers income, directly or indirectly to an associate, or
the tax payer transfers property including money directly or indirectly to an associate and the associate receives or enjoys the income from that property, and one of the reasons to transfer is to lower the total tax payable upon the income of the transfer or and the transferee.

Taxation of Partnerships and Partners.

The income or loss arising from activities of a partnership is liable to tax. A partnership shall be liable to furnish a partnership return of income but shall not be liable to pay tax on that income.

A notice of statement required to be furnished or filed in relation to a partnership's activities shall be filed by the partnership.

Calculation of partnership income or loss :- this is

the gross income of the partnership for the year calculated as if the partnership were a resident tax payer less

the total amount of deductions allowed in deriving the income

Taxation of non resident partners is on withholding tax basis where such tax is final on gross income earned without deductions for allowable expenditure.

Taxation of Partners

The gross income of a non resident partner includes the partner's share of partnership income attributable to sources in Uganda.

A resident Partner is allowed a deduction for a year of income for partner's share of a partnership loss. A partnership loss is deductible from non residents income only to the extent that the activity giving rise to the loss would have given rise to partnership income attributable to sources in Uganda if a loss had not been incurred.
Share of Partnership income or loss is in relation to their percentage interests in the Partnership or capital contributions where the agreement does not show the interest.

A contribution to a partnership by a partner of an asset owned by the partner is treated as a disposal of the asset by the partner to the partnership for a consideration equal to :-

the cost base of the asset to the partner at the date in which the contribution was made where all the ff conditions are satisfied-
the asset was a buz asset of the partner before its disposal.
The parties and partnership are residents at time of contribution
Partner's interest in the capital of partnership after contribution is 25% or more
in any other case, market value of the asset at the time of contribution where (a) applies, the asset retain the same character as it did before disposal to partnership.

N.B. The same principle applies where a partnership has sold its undertaking to another partnership.

Taxation of Trusts and Beneficiaries

Chargeable trust income is the gross income of the trust (other than an amount derived for immediate or future benefit of an ascertained beneficiary) calculated as if the trust is a resident tax payer, less
The total amount of deductions allowed under the Act qualified beneficiary trust – means
trust in relation to which a person other than a settlor has a power solely exercisable by that person to vest the corpus or income of the trust in that person.
A trust whose sole beneficiary is an individual or an individuals estate or appointees
But does not include a trust whose beneficiary is an incapacitated person.
Settlor trust – means a trust where the settlor has

the power to revoke or alter the trust, so as to acquire a beneficial entitlement in the corpus or income of the trust
reversionary interest in the corpus or income of the trust

The income of a trust is taxed either to the trustee or to beneficiary of the trust.
A trust is required to furnish returns of income
A settlor trust or qualified beneficiary trust
is not treated as an entity separate from the settlor or qualified beneficiary respectively.
The income of such a trust is taxed to the settlor or qualified beneficiary of the property owned by the trust is deemed to be owned by the settlor or qualified beneficiary.

The trustee of an incapacitated person's trust is liable for tax on the chargeable trust income of the trust.

Trustees are jointly and severally liable for a tax liability arising in respect of chargeable trust income that is not satisfied out of the assets of the trust.

Where the trustee has paid tax on the chargeable trust income of the trust, that income shall not be taxed again in the hands of the beneficiary.

Any amount derived by the trustee for the immediate or future benefit of any ascertained beneficiary, other than an incapacitated person with a vested right to such amount is treated as having been derived by the beneficiary for the purposes of the Act.

A trustee of a trust that is non resident is liable for tax or so much of chargeable trust income as is attributable to sources in Uganda.

Any amount derived by a trustee as execution of the estate of a deceased person shall, to the extent that the commissioner is satisfied that such amount has been derived for the immediate or future benefit of any ascertained heir or legatie of the deceased, be treated as having been derived by such heir or legatie.

The heir or legatie shall be allowed a deduction for expenditure and loss incurred in deriving such income.

The trustee of an estate of a deceased person is responsible for the tax liability of the deceased tax payer arising for any year of income prior to the year in which the tax payer died.

Taxation of Companies and Share holders

A Company is liable to tax separately from its shareholders

A dividend paid to a resident Company other than an exempt organisation by another by another resident Company is exempt from tax where the Company receiving the dividend controls, directly or indirectly, 25% or more of the returning power in the Company paying the dividend. This however does not apply to :-

a dividend paid to a financial institution by virtue of its ownership of redeemable shares in the Company paying the dividend or
where a Company takes part in a transaction in the nature of **dividend stripping** and receives a dividend from a resident Company in the transaction, the Company receiving the dividend shall include the dividend in its gross income to the extent the commissioner considers necessary to offset any

decrease in the value of shares in respect of which the dividend is paid or in the value of any property caused by the payment of the dividend.

In case of such transaction, commissioner may also reduce the amount of any deduction arising to the extent to which it represents the decrease in value of the shares or other property.

**dividend stripping** includes an arrangement under which

a Company referred to as the "**acquiring Company**" acquires the shares in the target Company for an amount that reflects the profits of the target Company

a Company referred to as the "**target Company**" has accumulated or current year profits or both represented by cash or other readily realizable assets.

the disposal of shares in the target Company gives rise to a tax free capital gain to the share holders in the target Company.

After the acquiring company has acquired the shares in the target Company, the target Company pays a dividend to the acquiring Company which in the absence of dividend stripping transaction would be exempt from tax in the hands of the target company.

After the dividend is declared, the acquiring Company sells the shares for a loss.

Where a resident person transfers a business asset, with or without any liability not in excess of the cost base of the asset to a resident Company other than an except organisation in exchange of a share in the transferee and the transferor has 5% or quarter interest in the returning power of the transferee immediately after the transfer.

- the transfer is not treated as a disposal of the asset by the transferor but is treated as the acquisition by the transferee of a buz asset .
- the transferee's cost base for the asset is equal to the transferor's cost base for the asset at the time of transfer.
- the cost base of a share received by the transferor in exchange for the asset is equal to the cost base of the asset transferred less any liability assured by the transferor in respect of the asset.

The above apply for liquidation of Companies but the transfer of the asset is not a dividend and no gain or loss is taken into account on the cancellation of the transferee's shares in the liquidated Company.

**<u>Dividend Income</u>** :-

Dividend means

where a company issues debentures or redeemable profit shares to a shareholder

- in respect of which the share holder gave no consideration, an amount equal to the greater of the nominal or redeemable value of the debentures or shares or
- in respect of which the share holders gave consideration which is less than the greater of nominal or redeemable value, an amount equal to the excess.

any distribution upon redemption or cancellation of a share or made in the course of liquidation, in excess of the nominal value of the share redeemed, cancelled or subject to liquidation.

In the case of a partial return of capital, any payment made in excess of the amount by which the nominal value of the shares was reduced.

In the case of a reconstruction of a company any payment made in respect of the shares in the company in excess of the nominal value of the shares before the reconstruction or

the amount of any loan, the amount of any payment for an asset or services, the value of any asset or services provided or the amount of any debt obligation released by a company to or in favour of a shareholder of the Company or an associate of a share holder to the extent to which the transaction is in substance of distribution of profits, but does not include a distribution made by a building society.

The rate of tax for dividend is 15% and this tax is final.

**Exempt**

Dividend from a Company where one owns > 251 of the shares in the paying Company.

**<u>Withholding of tax at source</u>**

Every employer shall hold tax from payment of employment income to an employee not withstanding any other law that provides otherwise.

Interest income – a resident person who pays interest to another resident person shall withhold tax on the gross amount of the payment at the rate of 15% of gross paymen

This does apply to interest paid by a natural person

interest paid to a financial institution

interest paid by a company to an associated Company

interest paid which is exempt from tax in the hands of the recipient.

(associated 6 refers to 50% holding of Company by another)

**Dividend income :-** a resident company which pays a dividend to a resident share holder shall withheld tax on the gross amount of the payment at a rate of 15% of gross dividend.

**Payment for goods and services -** Where the government of Uganda, a government institution, a local authority, any Company controlled by government or any person designated in a notice issued by the minister as payer, pays an amount or amounts in aggregate exceeding one million shillings to any person in Uganda.

for a supply of goods or materials of any kind

for a supply of any services

The Payer shall withhold on the gross amount of payment, 4% and shall issue a receipt to the payee. Where separate amounts are supplied which would have ordinarily been supplied together and thus exceeding one million shillings in value the act prescribes that the consignments be taxed separately even though they may be less than one million.

5. **International payments** - a 15% withholding tax is levied on the amount being paid to a non resident person and also for dividend interest and royalties to a non resident person and foreign entertainers and sportsmen.

Non resident services contract – a person who is in agreement with another non resident person is required to with hold tax from any payment made under the agreement at a rate prescribed by the commissioner.

**Withholding as a final tax**.

Where the tax has been withheld under payment of interest by financial institution to a resident individual and or payment of dividends to resident individual, the tax is final and;

(a) no further tax liability is imposed upon the tax payer in respect of the income to which the tax relates.
(b) That income is not aggregated with the other income of the payer for the purpose of ascertaining chargeable income.
(c) no deduction is allowed for any expenditure or losses actually incurred in deriving the income.
(d) No refund of tax shall be made in respect of the income.

**Payment of tax withheld**.

The withholding agent should pay the tax withheld or supposed to be withheld within 15 days after the end of the month in which payment subject to the tax was made by the agent.

Where a person withholds or should have withheld tax as a promoter or agent of a non resident performer, entertainer or sportsman, tax shall be paid to the commissioner within 5 days of the performance or by the day before the date the non resident leaves Uganda, which ever is earlier.

**Failure to withhold tax**

The agent who fails to withhold tax in accordance with the act will be personally liable to pay such tax to the commissioner but will be entitled to recover the amount from the payee.

**Failure to remit tax withheld**

The tax so withheld but not remitted will be treated as a debt to the government and collection & recovery procedures will apply.

**Tax credit certificate**

**A** withholding agent shall deliver to the payee a tax Credit certificate settling out the amount of payments made and tax withheld during the year. This is attached to tax returns made by payee.

**Records of payment and tax withheld**

These should be maintained and kept by the agent for inspection by the commissioner showing

payments made to a payee

tax withheld from those payments

These should be kept for 5 years following the year to which they relate.

**Priority of tax withheld**

Tax withheld is held in trust for the government and is not subject to attachment in respect of a debt or liability of the agent and in event of liquidation or bankruptcy of agent, the commissioner shall have a first claim before any distribution property is made.

**Small business tax payer rates**

Where the gross turn over of a resident tax payer for a year derived in carrying on a business or businesses is less than fifty million (50m) Shillings, the income tax payable shall be determined in accordance with the second schedule of the act, unless the tax payer elects by notice in writing to the commissioner.

The 2nd Schedule stipulates tax as follows :-

| Gross turn over | Tax |
|---|---|
| 1. X $\leq$ 20m p.a. | SHS. 100,000 |
| 2. 20M < X $\leq$ 30m | Shs. 250,000 or 1% of gross turn over whichever is the lower |
| 3. 30m < X $\leq$ 40m | Shs. 350,000 or 1% of gross turnover, whichever is the lower |
| 4. 40m < X $\leq$ 50m | Shs. 450,000 or 1% of gross turn over, whichever is the lower **and** |

(a) the tax shall be final tax on the business income

(b) no deductions shall be allowed for expenditures or losses incurred in the production of the business income

(c) no tax credits allowed shall be used to reduce the tax payable as the business income except

any credit allowed for withholding tax paid in respect of amounts included in the gross turnover of the tax payer or

any credit allowed for provisional tax paid in respect of amounts included in the gross turn over of the tax payer.

**International taxation**

Income is derived from sources in Uganda to the extent to which it is

(a) derived from the sale of goods:-

in the case of goods manufactured, grown or mined by the seller, the goods were manufactured, grown or mined in Uganda or

in the case of goods purchased by the seller, the agreement for sale was made in Uganda, wherever such goods are to be delivered.

(b) derived by a resident person in carrying on a buz as owner or charterer of a vehicle, ship or aircraft whenever it may be operated.
(c) Derived from any employment exercised or services rendered in Uganda
(d) Derived in respect of any employment exercised or services rendered under a contract with the government of Uganda wherever exercised or rendered.
(e) Derived by a resident individual from any employment exercised or services rendered as a driver of a vehicle or an officer or member of a crew of any ship, vehicle or aircraft. Wherever operated.
(f) Derive from the rental of immovable property located in Uganda.
(g) Derive from the disposal of a share in a Company the property of which consists directly/indirectly of interest in such immovable property where interest or share is a business asset.
(h) Derived from the disposal of movable property other than goods, wherever the property is to be delivered.
(i) An amount
included in the business income of tax payer in respect of disposal of a depreciable asset used in Uganda.
(ii) treated as an income where the deduction was allowed for an expenditure, loss or bad debt in production of income in previous years and is now recovered.

(j) Royalty (i) arising from the use of or right to use in Uganda
A. any patent, design, trade mark or copying it, formula etc.,
B. any motion picture film
C. any video or audio material connected to broadcasting
D. any sound recording or advertising
E. any tangible movable property
arising from the importation of any scientyic, technical, industrial commercial.
Arising from he use of or the right to use or receive in Uganda any video/audio material by satellite, cable or similar tech for use in connection with television or radio broadcasting.
Arising from he disposal of industrial or intellectual property used in Uganda.

(k) interest where
(i) the debt obligation giving rise to the interest is secured by immovable property located or movable property used in Uganda.
(ii) The payer is a resident person
(iii) The borrowing relates to a buz carried in Uganda
.
(l) a dividend or director's fee paid by a resident company
(m) a pension or amnity where

(i) it is paid by the government of Uganda or by a resident person
(ii) It is paid in respect of an employment exercised/rendered in Uganda.

(n) natural resource payment in respect of a natural resource taken from Uganda.
(o) A foreign currency debt gain derived in relation to a buz debt which has arisen in the course of carrying on a business in Uganda.
(p) A contribution to a retirement fund made by a tax exempt employer in respect of an employee whose employment is exercised in Uganda.
(q) A management charge paid by a resident
(r) Attributable to any other activity which occurs in Uganda is conducted through a branch in Uganda.

Foreign employment income

Foreign source employment derived by a resident individual is exempt
From tax if the individual

Foreign tax credit

A resident tax payer is entitled to credit for any foreign income tax paid by the tax payer in respect of foreign source income included in the gross income of the payer. Such foreign tax credit shall not exceed the income tax payable in Uganda on the payer's foreign source income for the year, by calculating the average rate of Uganda income tax of the payer to tax payer's net foreign source for the year.

Calculation of the foreign tax credit of a tax payer for a year income is made separately for foreign source business income and other income derived from foreign sources by the tax payer .
N.B. average rate of Uganda income tax is the percentage that the Ugandan income tax before the foreign tax credit is of the chargeable income of the tax payer for the year and in the case of tax payer with both foreign source business income and other income derived from foreign sources, the aver rate of tax is to be calculated separately for both classes of income.

Taxation of branch profits.

A tax is imposed on every non resident company carrying on business in Uganda through a branch which has repartriated income for the year of income.
The rate applicable to the repatriated income is 15% i.e. the non resident rate.
The repatriated income of a branch is calculated as follows :-

A + (B – C) –D

Where A = total cost base of the assets net of liabilities of the branch at commencement of the year.
B = net profit of the branch for the year of income calculated in accordance with GAAP
C = Ugandan tax payable on the chargeable income of the branch for the year.

D = total cost base of the assets net of liabilities of the branch at the end of the year.

Tax on International payments.

A tax is imposed on every non resident person who derives any dividend, interest, royalty, natural resource payment or management charge from sources in Uganda. A dividend derived by a non resident person is only treated as income dividend from sources in Uganda to the extent to which the dividend is paid out of profits sourced in Uganda.

Interests paid by a resident company in respect of debentures is exempt from tax where the foreign tax apply:-

debentures were issued by a Company outside Uganda for the purpose of raising a loan outside Uganda.
The debentures were issued for the purpose of raising funds for use by the Company in business carried outside Uganda.
The interest is paid outside Uganda

Tax on payments non resident public entertainment or sports person

A tax is imposed on every non resident person carrying on business of ship operation, charterers or air transport operator who derives income from the carriage of passengers who embark or cargo or mail which is embarked in Uganda. The rate is 15% on gross amount derived by the person from the carriage.

Where a non resident carries on the business of transmitting messages by cable, radio or satellite communication, the chargeable income of the person derived from transmission of messages whether or not such message originated in Uganda, is 5% of the gross amount derived by a person in respect of such transmission.

International agreements

The government of Uganda can enter into international agreements with another country where both countries can help each other in the collection of taxes. Where an exemption or a reduction is imposed by the Uganda Government, the benefit can only accrued to persons of other countries in the agreement only to the extent to which they are residents of that other country.

Depreciable Assets :- Sixth schedule of the Act.

A person is allowed a deduction for the depreciation of the person's depreciable assets, other than an asset of less than 5 currency points (100,000)

Depreciable assets are classified into 4 classes with depreciation rates applicable for each class.

| CLASS | ASSETS INCLUDE | RATE |
|---|---|---|
| 1. | Computers and Data handling equipment | 40% |
| 2. | Automobiles; buses and minibuses with a setting capacity of less than 30 passengers; good vehicles with a load capacity of less than 7 tones; construction and earth moving equipment | 35% |
| 3. | Buses with a seating capacity of 30 or more passengers; goods vehicles designed to carry or pull loads of more than 7 tones, specialized trucks; tractors; trailers and trailer mounted containers; plant and machinery used in farming, manufacturing or mining operations. | 30% |
| 4. | Rail road cars, locomotives and equipment; vessels, barges, tugs and similar water transportation equipment; air craft; specialized public utility plant, equipment and machinery, office furniture fixtures and equipment, any depreciable asset not included in another class. | 20% |

A person's depreciable asset shall be placed into separate pools for each class of asset and the depreciation deduction for each pool is calculated according to the ff formula.

A X B

Where A = the written down value of the pool at end of the year of income

B = the depreciation rate applicable to the pool.

The written down value of a pool at the end of a year of income is the total of:-

(a) written down value of the pool at the end of the preceding year of income after allowing the deduction of depreciation and
(b) the cost base of the assets added to the pool during the year of income;
(c) reduced but not below zero, by the consideration received from disposal of assets in the pool during the year of income.

Where the amount of consideration received by a person from the disposal during a year of income of any asset or assets in a pool exceeds the written Down value of the pool, the excess is included in the business income of the person.

Where the written down value at the end of the year after allowing for the deduction of depreciation is less than 5 currency points, a deduction shall be allowed for the amount of that WDV.

Where all the assets in a pool are disposed of before the year end, a deduction is allowed for the amount of the WDV of the pool as at the end of that year.

Where a person has incurred non deductible expenditures in more than one year in respect of a depreciable asset, the expenditures are treated as if they were incurred for the acquisition of separate assets of the same class.

The cost base of the depreciable asset is added to a pool in the year of income in which the asset is placed in service.

Where a depreciable asset is only partly used during a year of income in the production of income included in gross income, the depreciation deduction is proportionately reduced.

The cost base of a road vehicle other than a commercial vehicle, is not to exceed 30,000,000=

Where the cost base of a road vehicle is limited, the person is treated as having acquired 2 assets.

1. a depreciable asset baring the road vehicle with cost base equal to 30,000,000
2. a business asset that is not a depreciable asset with a cost base equal to the difference between the cost base of the asset not taking into account the actual cost base.

Where a road vehicle to which the above applies is disposed of, the person is treated as having disposed of each of the assets and the consideration received on disposal is apportioned between the 2 assets based on the ratio of the cost base of each asset to the actual cost base of the asset.

i.e. if the actual (original) cost of the asset was 100m,
the max. allowable limit of the depreciable as is 30m
therefore the cost base of "the other business asset" is 70m
if the consideration on disposal is 80m, it is apportioned as follows :-

1. depreciable asset - $\frac{30}{100} \times 80 = 24m$

2. business asset - $\frac{70}{100} \times 80 = 56m$

In calculating the amount of any gain or loss arising on disposal of the asset termed "business asset", the cost base of the asset is determined by reducing the cost by the depreciation which would have been allowed to the person if the asset :-

(a) was a depreciable asset being a road vehicle
(b) the asset was the only asset in the pool

Commercial vehicle means

(a) a road vehicle designed to carry loads of more than half a tone or more than 13 passengers.
(b) A vehicle used in a transportation or vehicle rental business.

Initial allowance :- A person who places an item of eligible property into service for the first time during the year of income is allowed a deduction for that year of an amount equal to

(a) where the asset is placed in service outside Kampala, Entebbe, Namanve, Jinja, Njeru, 75% of the cost base of the property at the time it is placed in service or

(c) in any other case, 50% of the cost base of the property at the time it is placed in service.

The cost base of an asset is reduced by the amount of the deduction allowed under the Act.

N.B. Eligible property means Plant & machinery wholly used from production of income but does not include;

(i) goods and passenger transport vehicles
(ii) appliances of a kind ordinarily used for house hold purposes
(iii) office or household furniture and fitting.

Industrial Building :-

Where a person has incurred capital expenditure in any year of income on the construction of an industrial building and the building is used by the person during the year in the production of income included in gross income, the person is allowed a deduction for the depreciation of the during year as calculated according to the following formula.

A X B X C/D

Where

A -the depreciation rate applicable (5%)
B -the capital expenditure incurred in the construction of the building
C -the number of days in the year of income during which the asset was used or was available for use in the production of income included in gross income
D -the number of days in the year of income

Note

1. Where an industrial building is only partly used by a person during a year of income for prescribed uses, the amount of the depreciation deduction allowed shall be proportionately reduced.
2. Where an industrial building is only partly used by a person during the year for prescribed uses and the capital expenditure incurred in the construction of that part of the building used for other uses is more than 10% of the total capital expenditure incurred on the construction of the building, the building is treated as wholly used for prescribed uses.
3. where a person has incurred expenditure in making a capital improvement to an industrial building in a year, the expenditure is taken as capital expenditure incurred in that year in the construction of a separate industrial building.

4. Where an industrial building is purchased by a person, the person is deemed to have incurred capital expenditure incurred by the person who constructed the building.
5. The amount of the deduction allowed is not to exceed the amount which, apart from making the deduction, would be the residue of expenditure at the year end. (< O)
6. Where an industrial building has been disposed of by a person during the year, the cost base of the building is reduced by any deductions allowed to the person in respect of the building.
7. Where an industrial building is bought and sold together with land, the value of the land shall be the difference between the total consideration and the value of the building.
8. Where consideration is received on disposal of a building on which an extension was taken as separate capital expenditure, the consideration shall be reasonably apportioned among the separate buildings.

Relevant definitions

Capital expenditure does not include:-

(i) expenditure incurred in the acquisition of a depreciable asset installed in an industrial building.
(ii) Expenditure incurred in the acquisition of, or of any rights in or over any land.

Industrial Building means any building which is wholly or partly used or held ready for use by a person in
(a) manufacturing operations
(b) research and development into improvement or new methods of manufacture
(c) mining operations
(d) an approved hotel business
(e) an approved hospital

Residue of expenditure – capital expenditure less any allowable deductions and any amounts which would have been allowed as deductions if the building was solely used for prescribed uses since construction was completed.

Farming :-

This includes pastroral, agricultural, plantation, horticultural or other similar operation. Farm income, includes the business income derived from the carrying on of farming operations, chargeable farming income is the total farming income of a tax payer for a year of income reduced by any deductions allowed under the Act which relate to the production of such income e.g.

(i) expenditure of a capital nature on
  (a) the acquisition or establishment of a horticultural plant
  (b) the construction of a green house

shall be allowed on the income of a horticulturalist at the rate of 20% of the amount expenditure in the year of expenditure and in the following four years of income in which the plant or greenhouse is used. This shall include expenditure on draining or clearing land.

Farm works means any labor quarters and other immovable buildings necessary for the proper operation of a farm, fences, dips, drains, water and electricity supply works, wind breaks and other works necessary for farming operations but does not include;

(a) farm houses or
(b) depreciable assets

Any "assessed farming loss" incurred shall be carried forward and allowed as a deduction in the following year of income. In cse the creditors of the farm allow a concession with the tax payer, the assessed farming loss should also be reduced in proportion to the concession.

Insurance Business

This is the business of or in relation to the issue of, or the undertaking of liability under life policies or to make good or indemnify the insured against loss or damage, including liability to pay damages or compensation contingent up the happening of a specified event.

Life insurance means

(i) effecting carrying out and issuing policies on human life
(ii) effecting carrying out and issuing policies on risk of a person sustaining injury or dying as a result of accident, disease etc, expressed to be for a period not less than 5 years except under special circumstances.
(iii) Effecting, carrying out and issuing policies whereby in return for premiums paid to insurer in the future.

Short term insurance business means any insurance business which is not a life insurance business.

Chargeable income arising from short term insurance business

This is determined by the following formula A – B
Where A = the total amount derived by the resident person for the year of income in carrying on a short term insurance business as determined by;

(a) the amount of gross premiums, including premiums on re-insurance derived by the person during the year of income in respect of any risk, other than premiums returned to the insured.
(b) The amount of any other income derived by a 'person' in a year including any commission or expense allowance derived from investments held in connection with such a business, any gains derived on disposal of assets of the business.
(c) The amount of any reserve deducted in the previous year in relation to un expired risk.

B= the total deductions allowed for the year of income in production of income from the carrying on of short terms insurance business being;

(a) the amount of claims admitted during the year in the less any amount recovered or recoverable under any contract or re-insurance, guarantee, indemnity
(b) amount of agency expenses incurred in the year.
(c) Amount of expenditures and losses incurred by the person which are allowable as deductions, other than expenditures or losses referred to above.
(d) The amount reserve or unexpired risks referable to such business at the percentage adopted by the Company at the year end.

Any loss incurred in any year of income shall be carried forward and offset against any income in the year of income following the one in consideration.

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| Course Name | : Audit Practice and Procedures |
|---|---|

**Course Description**
The Course details different definitions, scope and purpose of auditing, audit appointment process, internal control systems within an organization, process of planning and audit, having an audit evidence, as well as understanding working papers.

**Course Objectives**

- To help students develop skills in evaluating different internal control systems of the organization.
- To enable them access knowledge and skills of developing an audit plan.
- To help students develop the idea of analyzing and interpreting several audits.
- To assist students learn the different theories of constructing an audit plan or procedure.

**Course content**
**Introduction**

- Definition of an Audit
- Reasons for performing an audit
- Scope of an external audit
- Types of audits
- Auditing regulatory frameworks
- Eligibility to conduct company audits
- Categories of Auditing Practice Board (APB)
- Accounting Vs Auditing

**The Audit Appointment Process**

- Client screening
- Before accepting information
- Communicate with present auditors
- Present auditors

**Internal Controls**

- Definition of internal control systems
- Reasons for need of internal controls
- Understanding the system
- Documenting the system
- Methods of ascertaining the system

**Planning the Audit**

- Typical planning procedure
- The overall audit plan
- Developing the audit plan to meet the audit objectives
- Definition of audit risk in relation to planning
- Form of audit risks

**Audit Evidence**

- Definition of audit evidence
- Factors that constitutes sufficient appropriate evidence

- Relevance of audit evidence
- Different techniques of gathering audit evidence
- Analytical procedures as substantive procedures

**Working Papers**

- Definition of working papers in auditing
- Contents of working papers
- Standardization of working papers
- Advantages of standardized papers
- Form and control of working paper
- General guidelines that are followed in preparation of working papers
- Confidentiality, safe custody and ownership of working papers
- Permanent file
- Contents of a typical permanent audit file

**Mode of delivery** Face to face lectures
**Assessment**
**Coursework** 40%
**Exams** 60%
**Total Mark** 100%

**What is an audit?**

An independent examination of the financial statements of an enterprise where such an examination is conducted with a view to expressing an opinion as to whether those statements give a true and fair view.

**Why auditing**

It was recognised that whenever a fiduciary relationship with the financial implications existed there was need for an outsider with sufficient independence and objectivity to review the accounts of stewardship and to express an opinion as to their honesty or otherwise. For example, audit of financial statements of a company to show how the directors have dealt with the assets of the company on behalf of the shareholders. The companies Act 1948 together with subsequent Acts emphasise the compulsory audit requirement including the recognised professional qualification, duties, powers, responsibilities and minimum disclosure levels by auditors.

Auditing is a very old profession, and the role of the auditor has changed since it originated, from a reviewer of simple accounts, to a role with a strong emphasis on the detection of fraud, to its current state of expressing an opinion on the truth and fairness of a company's financial statements.

**Assignment**

Read and make notes on the development of auditing.

**The purpose of external audit**

All users of financial statements have an interest in the state of the company's financial affairs. An independent audit fulfils the need to ensure that those financial statements are objective, free from bias and manipulation and relevant to the needs of the users.

**Main reasons for performing an audit;**

1. To fulfil a company requirement (legal requirements as per companies Act.)
2. To identify any material weaknesses in the accounting and internal control system and make recommendations for their improvement
3. Audited financial statements are a basis when soliciting credit financing
4. In case of business purchase, combinations or amalgamations the audited values of assets and liabilities are more reliable
5. A satisfactory audit report can be used to provide evidence of a well run business for the interest of stakeholders
6. Disputes between management are more easily settled; for instance profit sharing arrangements.

Disadvantages of an audit

1. High audit fees

The accountant may be involved in the preparing of financial statements or as a tax adviser or general
financial adviser. Since fees are based on time necessarily spent and personnel engaged, the fees are
high for sole traders and partnership

2. Disruption the audit work causes to staff and management of the client in giving time to provide information.

**Scope of external audit**

No audit is identical to any other however; a number of stages can be identified.

1. Planning of the audit

Assessing the accounting and internal control systems and audit risk assessment
At this stage the auditor makes a preliminary evaluation of the enterprise's internal controls

a) If the controls are likely to lead to a true and fair set of financial statements (strong) the auditor will test those controls (compliance testing/reliance approach)
b) If the controls appear weak, he will carry out extensive testing of the transactions and balances which appear in the financial statements.
c) If the controls are not operating currently the auditor takes on a substantive approach.

2. Consideration of the ways in which audit evidence can be sought
    - Testing of internal controls tests of control
    - Extensive testing of transactions and balances 'substantive procedures'

1. Finally the auditor will review the financial statements as a whole and formulate an audit opinion.

**TYPE OF AUDITS**

1. Year end audits
2. Interim and final audits

Interim stage - planning and tests of controls
Final state - substantive balance sheet audit

3. Continuous audits - for large clients.

The audit report lends credibility to the accounts since it is the opinion of an independent expert (the auditor). So third parties can rely on the accounts

**AUDITING REGULATORY FRAMEWORK**

Of the accounting professional bodies the following qualify in a practising firm and once a practising certificate is gained they can audit limited companies;

1. ACCA (Association of Chartered Certified Accountants)
2. ICAEW (Institute of Chartered Accountants in England and Wales)
3. ICAS (Institute of Chartered Accountants of Scotland)
4. ICAI (Institute of Chartered Accountants in Ireland)

**Eligibility to conduct company audits;**

1. Membership of a recognised supervisory body (RSB)
2. Eligibility under the rules of the RSB

RSB is a body, which exists to ensure that its members comply with their rules and thereby ensuring that all audits are performed to a satisfactory standard by qualified persons. The above professional boddies comprise the RSB.

Rules and practices of RSBs must be such that the following criteria are satisfied;

1. Only fit and proper persons can be appointed as company auditors

An auditor may be an individual, a firm or a body corporate (where 15% of the ownership and
control is in the hands of qualified persons.)

2. The company audit work is conducted properly and with integrity;
    - High standards of performance
    - Compliance with statements of auditing standards
    - General ethical standards
    - Procedures to maintain competence, ensure compliance, monitoring and enforcement

**Auditing Practice Board (APB)**

It replaced the auditing practices committee (APC) who produce Auditing Standards and Guidelines.
It is different from APC in that its non-practitioner members (lawyers, industrialists, academics) have voices on the board and the board can issue standards in its own right without CCAB having to veto the issue of standards.

**Categories of APB guidance**

a) Statements of auditing standards (SAS's)

These contain the basic principles and essential procedures with which auditors are expected to comply.
To a greater extent, they agree with international standards on auditing but where there is conflict
UK standards prevail.

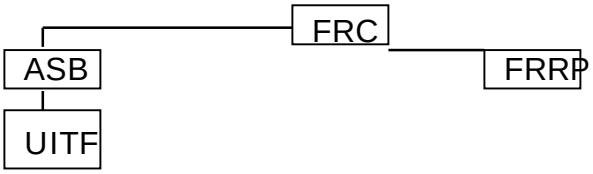
b) Practice Notes (PNs)

Give guidance to assist auditors in applying auditing standards in particular circumstances and industries.

c) Bulletins: Provide auditors with timely guidance on new or emerging issues.

**Statement of standards for reporting accountants (SSRA)**
This is currently only one dealing with the reporting requirements of smaller companies that are exempt from the audit requirements.
The auditing profession is regulated by the APB guiding its members' activities through the publication of
- SASs
- PNs and
- Bulletins

The accounting standards setting process




a) The Financial Reporting Council FRC)
Comprises around 25 members who are users, prepairs and auditors of accounts
It is responsible for guiding the ASB on its planned work programme

b) The Accounting Standards Board (ASB)
Has about 9 members and issues Financial Reporting Standards (FRSs)

c) The Financial Reporting Review Panel (FRRP)
Has about 15 members
Is concerned with the examination and questioning of departures from accounting standards
Has authority to take companies to court to force them revise defective accounts.

d) The urgent issue task force (UITF)
Covers urgent matters not covered by the existing accounting standards and the normal standard-
setting process is not practicable.

**Accounting Vs auditing**
Although the auditing progression is regulated by the APB the auditor must ensure that he maintains an independent knowledge of accounting standards and their application because he is primarily concerned with the end result of accounting - whether proper books of accounts have been kept, consistent and appropriate accounting policies were adopted and whether the financial statements comply with legislative requirements and accounting standards.

**Other influences**
e) The government
Overseas the auditing and accounting profession by financing statutes and regulations within which

the auditor must work. Self regulation for auditors was sanctioned by government in the recognised
supervisory body and recognised qualifying bodies.

f) Department of trade and industry (DTI)
Monitors the auditing profession

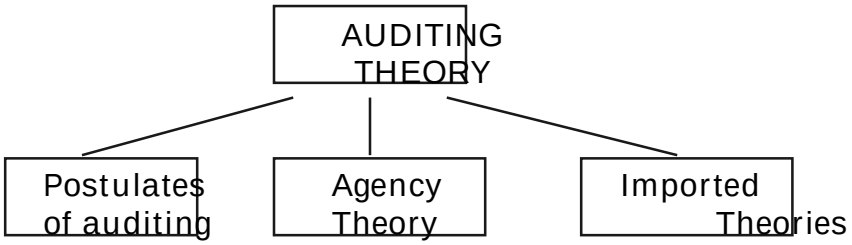
g) EC and European Directives
The Directives have an impact an audit practice for example the proposed voluntary community
environmental auditing scheme.

**b) International Auditing Bodies**
The international federation of accountants (IFAC) publishes international standards on auditing
(ISAs)
The FEE (Federation des Experts Compatibles Europeans) attempts to co-ordinate the activities of
European accounting bodies.

Conclusion:
The main influences on the auditing profession are:

- The companies Acts legislation
- The auditing profession through the APB
- The accounting profession through FRC and its sub-bodies
- The government
- The DTI
- The EC and European directives
- The international auditing bodies

**Question**
Given that directors have to ensure that fixed assets are correctly recorded, adequately secured, properly maintained, appropriately depreciate and written down where necessary and acquisitions and disposals are properly authorised. What types of controls would you expect to find in such a setting.




**Postulates of auditing**
Auditing theory supports and justifies practice. Postulates of auditing originally laid down by Martz and Sharat and subsequently developed.

**Definition**

**Postulate:** Something which is assumed to be true as basis for an argument, something taken for granted. There are no means of directly verifying or proving postulates and they represent "facts of life" which cannot be further reduced and which must be accepted in order to operate in the field.

If the auditing postulates are not true, then auditing as a discipline has no defence because certain issues cannot be resolved (such as independence)

**Mautz and Sharaf: the eight postulates**

a) Financial statements and financial data are verifiable
b) There is no necessary conflict of interest between the auditors and the management of the enterprise under audit
c) The financial statements and other information submitted for verification are free from collusive and other unusual irregularities
d) Consistent application of generally accepted accounting principles (GAAP) results in the fair presentation of financial position and the results of operations.
e) In the absence of clear evidence to the contrary, what has held true in the past for the enterprise under examination will hold true in the future.
f) When examining financial data for the purpose of expressing an independence opinion thereon, the auditors act exclusively in the capacity of audit
g) The professional status of the independent auditors imposes commensurate professional obligations.

These postulates have been developed and refined, but their basic premise remains unchallenged.

1. **Financial statements and financial data are verifiable**

This postulate appears to be reasonable and also very practical. If this postulate was not true, then no audit could ever take place, because it represents the fundamental purpose of an audit. There are circumstances of course, where this postulate is discovered to be untrue, or at least it is not operating, when the accounts and systems concerned are too unreliable or inadequate. This situation usually leads to a qualified audit report, the qualification stating that the auditors are unable to form an opinion on the truth and fairness of the financial statements (Called a disclaimer of opinion).

Even in the situation described above, the initial assumption is that the postulate holds true. The main reason that it does hold true most of the time is that there are external pressures on the business to keep a good system of control, producing auditable accounts. Such pressures come from banks, investors, creditors and other invited parties and it is formalised in company acts.

2. **No necessary conflict of interest between auditors and management.**

The postulate assumes that auditors and managers are working together towards the same goal of producing a true and fair set of accounts. Conflicts which arise are part of the normal relationship, such as:-

a) Honest disagreements over, say, the application of an accounting policy
b) Profit related pay, or similar situations, leading managers to manipulate figures to increase their remuneration.

c) Management fraud.

3. If the auditors cannot rely on the representation, explanations and so on given by the managers, then they may be unable to form an opinion, unless other evidence is available.

4. Financial statements free from irregularities

This assumption is the basis for the sampling techniques used by auditors, where a relatively small sample is collected, after using statistical methods, from a much larger' population. The audit approach which reviews the system of internal controls and tests for weaknesses in the system allows statistical sampling to be used. If it was assumed that irregularities both collusive and non-collusive, exist then the sample sizes would be increased to unmanageable levels, increasing the cost of the audit. Managers and auditors would also come into conflict, and this would cause the problem.

There is a move in modern auditing away from this postulate and towards recognition of the possibility of material fraud. This recognised that auditors should carry out their work with the expectation of discovering and material misstatement.

Although in an ideal environment this postulate should hold true, no system can be 100% effective and so reduces might be a better word that eliminates". A good system of internal control should reduce the probability of loss of assets, error, collusive, irregularities, manipulation of results and management override of controls.

5. Application of GAAP results in fair presentation

It is not enough to say accounts show a true and fair view. A bench mark must be provided to aid the auditors, and this is provided by GAAP (Generally Accepted Accounting Practice).

UK GAAP consists of SSAPs, FRS and company law since compliance with a standard may occasionally to a result which is not true and fair, the consistency concept steps in. The appropriate policy should be applied consistently to show a true and fair view. Without this guidance, auditors opinions would become so subjective and personalised that they would become useless.

6. What has held true in the past will hold true in the future

This extends the going concern principle as it relies on the accuracy of forecasting and the consistency of decisions by management over a number of years. If it did not hold true, then it would be impossible to rely on trends in the accounts and inter-temporal analytical review procedures (comparing results year to year would become meaningless. The audit procedures to compensate for this loss would be onerous. Including full and long examinations of post balance sheet events. It might even leave the audit open ended until the next audit took place. This is important in the context of representations from management. Particularly from small businesses as any other evidence will be rare, apart from analytical procedures.

7. The auditors act exclusively in the capacity of auditor

This postulate focuses on the independence of the auditors, but it appears to be expressing an ideal which is not met in practice. Large accountancy firms, provide

taxation, consultancy and corporate finance services to audit clients (remember that they cannot provide accountancy services to public companies). Small audit firms provide accountancy and taxation services to audit clients. Such audit firms may not see this as a problem affecting independence, but criticism from outside the profession has focused on this issue.

8. The professional status of the independent auditors imposes commensurate professional obligations.

This postulate underlies the concept of due care. It implies that auditors will maintain a standard of professional efficiency and put service before personal interest. As under any sale of services, the buyer is entitled to a good product for his money. The auditors can ensure this by, for example, keeping up to date with technical issues, but there is no absolute definition of what constitutes reasonable care and skill. The cost of negligence is high.

SAS 2002. The matters which should be considered include the following

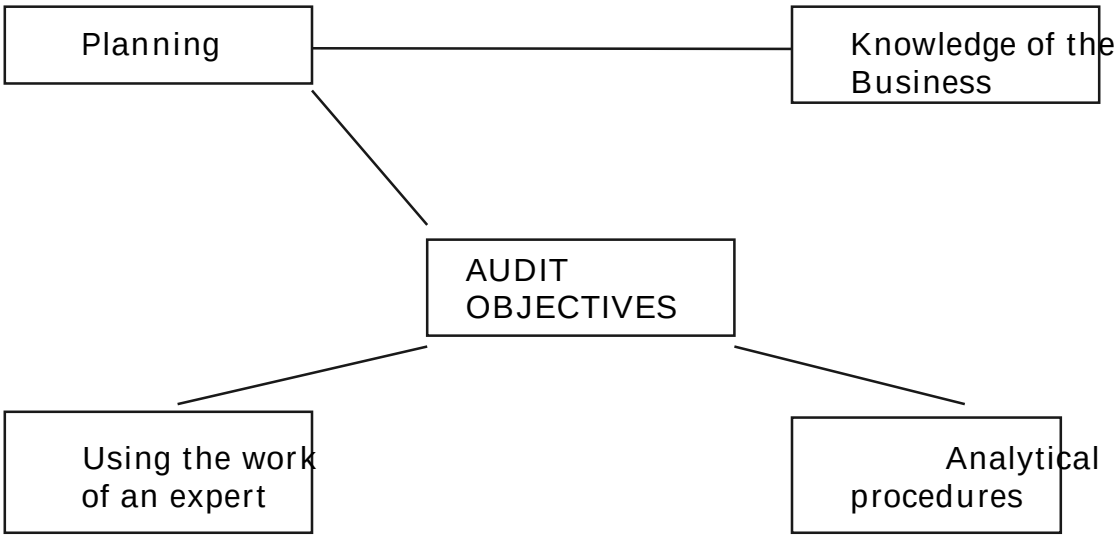
⇨ Knowledge of the entity's business
- Economic factors/industry conditions
- Important characteristics of the entity
- Operating style/control consciousness of directors
- Auditors cumulative knowledge, expected changes

=> Risk and materiality
- Setting materiality for audit planning
- Assessment of risks errors, significant audit areas
- Indication of misstatements (Fraud)
- Complex accounting areas (Accounting estimates)

⇨ Nature, timing and extent of procedures
- Tests of controls Vs substantive procedures
- Use of IT by entity auditors
- Work of internal auditors
- Procedures at/before year end

⇨ Co-ordination, direction, supervision and review
- Involvement of other auditors
- Involvement of experts
- Number of locations
- Staffing requirements

⇨ Other materials
- Regulatory requirements
- Going concern matters
- Terms of engagement, statutory responsibilities
- Nature, timing of reports, communication etc




Planning

SAS 200 planning states that auditors should plan the audit work so as to perform the audit in an effective manner (SAS 2001).

Objectives of audit planning are:-

- Appropriate attention is given on different audit areas
- Potential problems identified
- Facilitate review

SAS 200 looks at recurring audits. For new audits, the procedures below should be extended.

Distinguish between:-

- Overall strategy: audit plan
- Detailed procedures: The audit programme.

Considerations which are relevant in deciding whether a client is high risk include:-

i) Evidence of client engagement in fraudulent or illegal activities.
ii) The state of economic sector in which client operates (A depressed sector may indicate risk)
iii) The nature of the industry and client product lines, for example the building industry or fashion industry which are volatile
iv) The clients previous audit history (frequent changes of auditors and qualified reports are obviously bad news.
v) The general abilities of the client management

## THE AUDIT APPOINTMENT PROCESS

## CLIENT SCREENING

When a potential client approaches an auditor asking him to conduct an audit, the auditor will need to consider legal requirements and ethical considerations (where the potential client has previously had an auditor) when deciding whether or not to accept the potential client as a client.

Auditing standards require auditors to obtain a knowledge of the clients business, sufficient enable them to identify and understand those issues that may have a significant impact on the financial statements.

The knowledge is obtained both before accepting the client and after and should cover the following areas.

a) Industry conditions affecting the client business
b) The entity itself
c) The entity's products, market, suppliers, expenses, and operations
d) The entity financial performance and condition
e) The reporting environment

**Risk**

Client screening procedures are designed to screen out potentially risky audit clients. A risky client is one which may result in costs exceeding the audit fees due to the extra work that the auditors would need to perform to satisfy his objectives and give this audit opinion. Costs need to be viewed in their widest context e.g if the client ends up suing the auditor for negligence, the auditor will incur costs in defending the action and his reputation will be damaged, particularly if a number of clients are pursuing negligence claims.

**The Audit appointment process**


**New audit engagement**

There are additional audit considerations when a new audit client is obtained

⇨ Before accepting nomination
- Ensure properly qualified to act i.e independent, competent
- Ensure firms resources are adequate to service clients needs i.e staff, expertise, time
- Obtain references in respect of new client, e,g Dun P Bradstreet and assess risk
- Communicate with present auditors

Communicate with present auditors

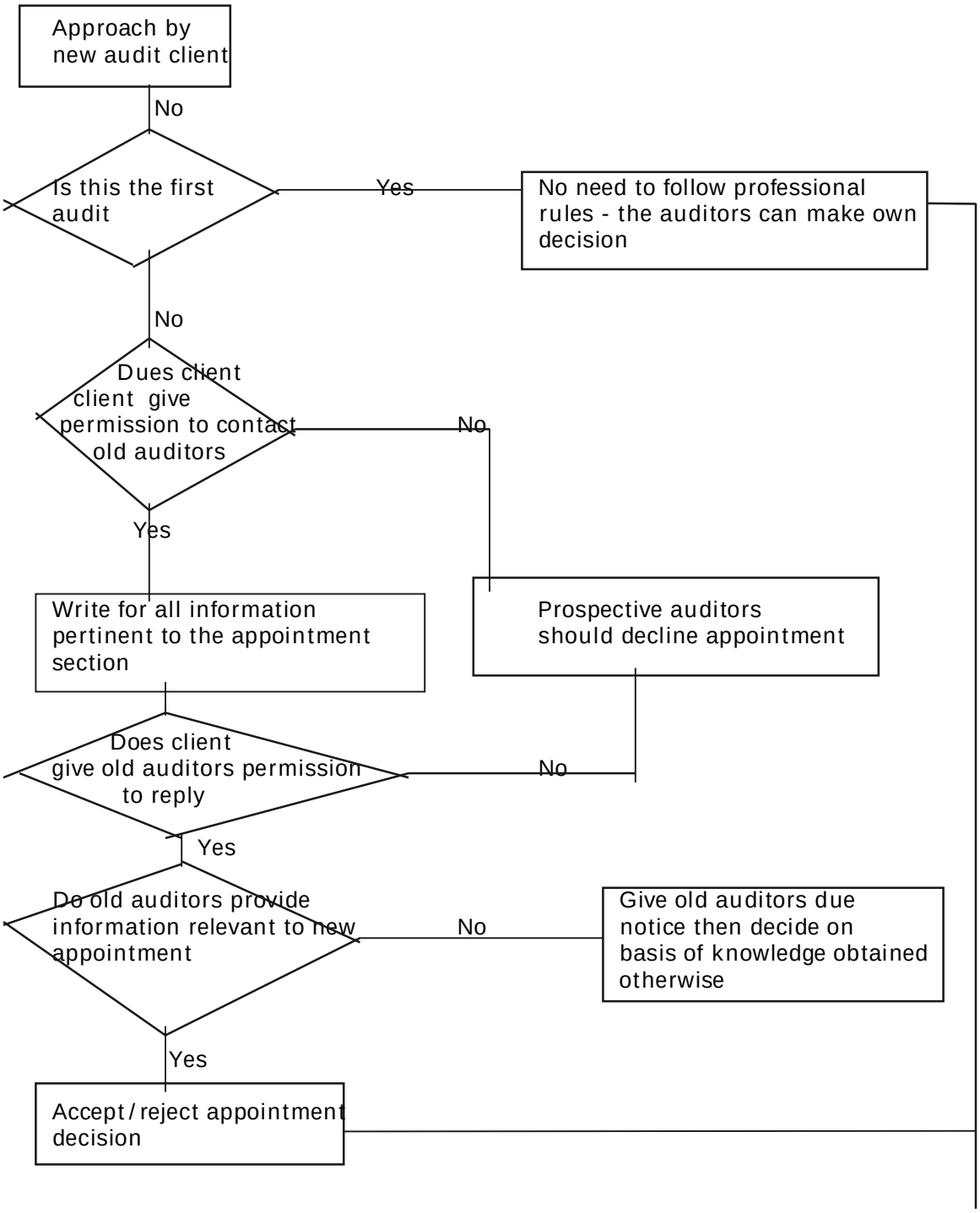
Rules of professional conduct statements 5 changes in professional appointment.

- Obtain clients permission to communicate with present auditors if refused decline nomination
- Write to auditors requesting information which may help decision whether to accept nomination

Present auditors

On receiving the above request the present auditors should:-

- Request clients permission to discuss affairs freely
- If refused inform proposed new auditors (who should decline nomination)
- Discuss freely all relevant matters




A working paper for the audit file to be used by he audit partners in deciding whether or not to accept an audit client. Consideration should be given to the following factors

i) legal
ii) ethical
iii) practical

**Legal**
The CA 1985 prohibits officers or servants of the company or partners or employees of an officer or servant of the company from accepting the position of auditors to the company.

The auditor must be a member of a recognised supervisory body (RSB) and eligible under the rules of that body. An RSB must only deem persons eligible for appointment who are

- appropriately qualified
- a member of a firm controlled by a qualified person

**Ethical**
If the fees from this appointment would exceed 15% of the gross fees of the practice (other than new practices) then the appointment should not be accepted.
Any personal relationship (kinship, friendship or mutual business interest) with an officer or employee of the company would be considered unethical. Any financial involvement with the company such as a shareholding or a loan to or from the company would also be regarded as unethical.

## INTERNAL CONTROLS

### Definition of internal control system

Defines the internal control system as comprising the control environment and control procedures. It includes all the policies and procedures adopted by the management of an entity to assist in their objective of achieving, as far as practicable, the orderly and efficient conduct of the business, including adherence to management policies, the safeguarding of assets, the prevention and direction of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information.

Control environment means that overall attitude, awareness and actions of directors and management regarding the internal control system and its importance to the entity. It encompasses management style, corporate culture, values, philosophy and operating style, the organisational structure, personnel policies and procedures.

Personnel policies and procedures, for example, would include those covering recruitment, retention and dismissal. The organisation structure should have clear lines of reporting responsibility and the maintenance of an internal audit function and audit committee demonstrates a commitment to high level controls. The use of management accounts for the purposes of variance analysis is also a high level control.

The control environment provides a background to detailed control procedures. It does not of itself, of course, ensure the effectiveness of the internal control system as a whole.

Control procedures are those established to achieve the entity's specific objectives. These objectives in an accounting context include the proper authorisation, timely and accurate recording of transactions in the correct period, the safeguarding of

assets and ensuring the existence of assets recorded. They include particular procedures to prevent, detect and correct errors. They differ from entity to entity and are affected by the size of the entity.

In practice, the choice of controls may reflect a comparison of the cost of operating individual controls against the benefits expected to be derived from them.

Many of the internal controls which would be relevant to the large enterprise are not practical, appropriate or necessary in the small enterprise. Managements of small enterprises have less need to depend on formal internal controls for the reliability of the records and other information, because of their personal contact with, or involvement in, the operation of the enterprise itself.

## 2. Why do companies need internal controls?

Companies need internal controls to stop things going missing and to make some sense of how the business is doing. Documents get lost and assets go home with the staff even where there are controls in place to record everything. Managers have a gut feeling for how the business is doing, but when all they have to prove it is three large boxes stuffed full of invoices and two large boxes full of expenses (and neither of these are quite complete), they may find it difficult to prove their ideas to the taxation authorities, and of course they may well be very wrong.

Documents are batched and pre-numbered so that once can check that they are all there. If some sales invoices have gone missing we may not be collecting what is owed to us. This means that our cash flow suffers and we cannot pay our debts. It also means that our financial statements may be wrong. If our financial statements understate our income we will find it more difficult to obtain finance from the bank we will appear less attractive to investors. If our purchase invoice go missing, or we do not match goods received notes to invoices at the period end in order to arrive at a goods received not invoiced figure, matters are even worse. We think we are making good profits but we are not. We spend money that is owing to creditors and when they present their final demands we have no cash and they threaten to put us into liquidation. Business goodwill is damaged. We then have to adjust profits downwards and we are accused of misleading the bank about our profits in order to obtain finance.

But what is the amounts involved are small? Does one invoice really matter? Experience shows that if one invoice has gone missing it is highly likely that several more are also missing, and the larger the organisation gets, the bigger the numbers get, and the tighter the controls have to be prevent significant errors.

Why so many authorisation controls? In order to allocate responsibility and deal with everyday problems. If fifteen people are involved in the processing of one invoice and something is badly wrong with it, there has to be a mechanism to show that the error occurred at a particular stage. If we do not this, errors continue to happen, no-one takes responsibility and the organisation gets a reputation for inadequate administration and inefficiency, and frauds become possible. Say for example, a clerk routinely authorises a false purchase invoice raised by a friend outside the company. The company pays the invoice and the clerk and his friend share the proceeds. This is a very common type of fraud. Controls to prevent this require

payments to be authorised only with reference to purchase invoices that are attached to goods received notes, or authorisations for the receipt of services by managers completely unconnected with the accounting function.

State that internal controls within an accounting system are needed to ensure that:

a) transactions are executed in accordance with general or specific authority
b) all transactions are recorded at the correct amount in the correct account in the proper period so as to permit the preparation of financial statements
c) access to assets and records is authorised.
d) recorded assets are compared with existing assets periodically and appropriate action is taken with regards to differences.

At an early stage in his work the auditor will have to decide the extent to which he wishes to place reliance on the internal controls of the enterprises. As the audit proceeds, that decision will be kept under review and, depending on the results his of his examination, he may decide to place more or less reliance on these controls.

The principal reason why internal control interests the auditor is that the reliance of the accounting records. If the auditor is satisfied that the internal control system is functioning, there is therefore a reduced risk of error in the accounting records.

The operation of internal controls should ensure the completeness and accuracy of the accounting records. If the auditor is satisfied that the internal control system is function, there is therefore a reduced risk of error in the accounting records.

It is very important to the auditor therefore to establish what internal control system exists and then to test that system to ensure that it is working properly.

Another reason that the auditor needs to consider the adequacy of the accounting system is that the auditor usually has an additional responsibility under legislation to form an opinion as to whether proper accounting records have been kept. This implies the operation of a sound system of internal control.

By recording the accounting system and checking its operation by tests of control, the auditor can reduce the amount of substantive procedures. The total amount of work is reduced as a result.

**Specific control procedures**

The include;

a) Reporting, reviewing and approving reconciliation
b) Checking the arithmetical accuracy of the records

Such controls include checking the casts on a purchase invoice, and recalculating the sales tax on sales invoices.

c) Controlling applications and the environment of computer information
d) Maintaining and reviewing control accounts and trial balances

Control accounts include receivables and payables ledger control accounts, bank reconciliations and non-current asset
registers.

e) Approval and control of documents

In a purchase system for example, there should be present authority limits. An order up to the value of $1,000 could be
approved by a department head, up to $5,000 by any one director, and beyond this by the Board as a whole.

f) Comparing internal data with external sources of information

This might include supplier statement reconciliation

g) Comparing the results of cash, security and inventory counts with the accounting records

An important general principle with respect to assets and records is that segregation. In particular there should be a
division of responsibilities for:

i) authorising or initiating the transactions:
ii) the physical custody and control of assets involved
iii) recording the transaction

No one person should be in a position both to misappropriate an asset and to conceal his act by falsifying the records. For
example, in a sales system the duties of receiving money from customers and writing up the sales ledger should be
separated. If not, money could be misappropriated and the records falsified to cover this.

i) Comparing and analysing the financial results with budgeted amounts.

**UNDERSTANDING THE SYSTEM**

**Accounting and internal control systems.**

ISA 400 requires that auditors obtain and document an understanding of the accounting system and control environment sufficient to determine their audit approach, whether that be a systems based approach, or a substantive approach. It also helps with the assessment of inherent and control risk. If control risk is to be assessed as less than high, the justification for that assessment must be documented.

This understanding can be updated year on year and auditors often perform 'walk through' tests, to ensure that their understanding and documentation of the system are correct. This simply involves taking a transaction through the system from source to destination and can often 'double' as a test of control and as a substantive procedure, depending on which elements of the transactions are checked. Such tests are particularly useful where the auditor is relying on the client's documentation of the system.

Remember that most companies are under a legal obligation to keep proper accounting records and that auditors are required to form an opinion as to whether they have done so. Most national laws require that:

a) The accounting records must be sufficient to show and explain the company transactions and must be such as to:
   i) disclose with reasonable accuracy, at any time, the financial position of the company at that time; and
   ii) enable the directors to ensure that any balance sheet and income statement company with the requirements of the legislation as to their form.

National legislation often prescribes specific books and accounts that must be kept

## DOCUMENTING THE SYSTEM

### Introduction

The various methods of ascertaining and recording the system may be summarised as follows:

| Ascertaining | Recording |
|---|---|
| a) Examining previous audit work | a) Narrative notes |
| b) Client's own documentation of the system | b) Organisation chart |
| c) Interviews with client's staff questionnaires | c) Internal control (ICQs) or checklists |
| d) Tracing transactions | d) Flowcharts |
| e) Examining client's documents | |
| f) Observation of client's procedures | |

### Methods of ascertaining the system

#### a) Examining previous audit work

In any situation except the first audit, the audit files should contain a record of the system as it operated at the last audit date. Unless there have been major changes, this will only require updating. Thus, the systems examination is work largely carried out at the first audit of a new client.

#### b) Client's own documentation of the system

Some clients, especially large clients, will have manuals of accounting procedures. These will provide a valuable source of information

#### c) Interviews with client's staff

At various stages during the examination of the system, the auditor will need to sit down with members of the client's staff and find out how they carry out their functions.

#### d) Tracing transactions (Walk-through checks)

In order to follow a particular sequence relating to a single transactions, it may be best to follow through a few typical transactions.

#### e) Examining client's documents

Example of part of an ICE adopted by a practising firm

---

| | |
|---|---|
| INTERNAL CONTROLL EVALUATION CHECKLIST | Prepared by: Date: |
| PURCHASES - PAYABLES- PAYMENTS | |
| CLIENT: | |
| | Reviewed by: |
| PERIOD | Date |

a) Control objectives.
b) Business considerations.
c) The checklist.

a) Control objectives As ICQ
b) Business consideration As ICQ
c) The checklist

1. Purchases

| | | |
|---|---|---|
| 1.1 Can goods be purchased without authority?<br>a) purchase requisitions approvals?<br>b) limit of buyers' authority to order?<br>c) purchasing segregated from receiving, accounts payable and inventory records?<br>unissued orders safeguarded against loss? | Reference | Comments |

1.2 **Can liabilities be incurred although goods not received?**
a) receiving segregated from purchase, accounts payable and inventory records?
b) are all goods passed directly to stores?
c) GRNs or equivalent prepared independently?
d) adequate comparison with order, claims for short shipments etc?
e) invoices, GRNs, direct to accounts payable not purchasing?
f) invoices checked to order and GRNs, prices checked?
g) check of extensions, additions, discounts?
h) documents cancelled to prevent re-use?
i) unmatched documents investigated regularly?
j) freight checked, bills matched to consignments?
k) purchase returns and allowances controlled-follow-up?
l) forward purchases controlled?

1.3 **Can cut-off errors occur?**
a) time lapse from recent of goods to invoice processing?
b) valuation of unmatched GRNs?
c) adequate control and recording of receipts?

1.4 **Can invoices be wrongly allocated?**
a) nominal ledger analysis?
b) analysis independently checked?
c) staff purchases controlled?
d) independent and regular review?

1.5 **Can liabilities be recorded for goods or services not ordered?**
a) goods received without authority?

2. **Trade payables**

2.1 **Can liabilities be incurred but not recorded?**

a) payables agreed periodically?
b) supplier's statements independently reconciled?
c) invoice register?
d) forward contracts?
e) order backlog follow up?
f) debit balances controlled?

3. **Payments**

3.1 **Can payments be made if not properly supported?**

a) discounts taken?
b) control over invoices before validating complete?
c) cheque signatories independent of purchasing, receiving, accounts payable and cheque preparation
d) signatories examine support for payment, check completeness, cancel support?
e) control over signature plates or presigned cheques?
f) control where one signature?
g) frequency with which cheques mailed?
h) independent regular bank reconciliation, with cheques directly from bank and review reconciliation?
i) cheques crossed account payee only, continuity accounted for, control over unused cheques?
j) bank transfers controlled - standing orders?
k) issue of bearer or 'cash' cheques?
l) advances and loans controlled?
m) giro payments, traders credits, direct debits?

## PLANNING THE AUDIT

Objective and general principles governing an audit of financial statements
ISA 200 objective and general principles an audit of Financial Statements states that the auditor should carry out an audit in accordance with ISAs and ethical principles to provide reasonable assurance that the financial statements are free from material misstatement.

Reasonable assurance is subject to the inherent limitations of the audit process which arise from the use of testing, the inherent limitations of any accounting or internal control system and the fact the most evidence is persuasive rather than conclusive. A significant element of any audit involves the use of judgement.

The auditor should plan and perform the audit with an attitude of professional scepticism recognising that circumstances may exist which cause the financial statements to be materially misstated.

An example of this principle is that the auditor should look to find additional evidence to support representations from management, and should not simply assume that they are correct.

**Extent of audit work**

It is for the auditor to decide on the extent of audit work he considers necessary in order to support his opinion. He may decide to conduct an extensive review of the accounting systems by carrying out detailed tests on a large number of transactions, documents, records etc. On the other hand he may wish to rely on the internal controls which are in operation to justify a reduction in the level of audit testing on those items.

## AUDIT PLANNING, KNOWLEDGE OF THE BUSINESS AND ANALYTICAL PROCEDURES

ISA 300 planning states that 'the auditor should plan the audit work so that the audit will be performed in an effective manner

Adequate planing of the audit work helps to ensure that appropriate attention is devoted to important areas of the audit, that potential problems are identified and that the work is completed expeditiously. Planning also assists in proper assignment of work to assistants and in co-ordination of work done by other auditors and experts.

The extent of planning will vary according to the size of the entity, the complexity of the audit and the auditor's experience with the entity and knowledge of the business.

Obtaining knowledge of the business is an important part of planning the work. The auditor's knowledge of the business assists in the identification of events, transactions and practices which may have a material effect on the financial statements.

The auditor may wish to discuss elements of the overall audit plan and certain audit procedures with the entity's audit committee, management and staff to improve the effectiveness and efficiency of the audit and to co-ordinate audit procedures with work of the entity's personnel. The overall audit plan and the audit programme, however, remain the auditor's responsibility.

The auditor should develop and document an overall audit plan describing the expected scope and conduct of the audit;

While the record of the overall audit plan will need to be sufficiently detailed to guide the development of the audit programme, its precise form and content will vary depending on the size of the entity, the complexity of the audit and the specific methodology and technology used by the auditor.

<u>Typical planning procedures</u>

Although the auditor's planning procedures will vary from one audit to the next the following are typical:

a) Consider the background to the client's business and attempt to ascertain any problem for that
sector of industry or commerce which may affect the audit work.
b) Consider an outline plan of the audit including the extent to which he may wish to rely upon internal controls and the extent to which work can be allocated to interim or final audit stages.
c) Review matters raised in the audit of the previous year by examining the audit files and discussing points with staff previously in outed in the audit to ascertain those facts which may have relevance to the current year.
d) Assess the effect if any change in legislation or accounting practice on the financial statements of the client.
e) Review any management or interim accounts which the client may have prepared as these may indicate areas of concern in the audit.
f) Meet the senior management of the client to identify problem areas e.g material variances between budgeted and actual results and significant changes in the client's accounting procedures.
g) Consider the timing of significant phases of the preparation of the financial statements e,g dates of physical inventory counting, balancing of receivable and payable ledgers, posting of general ledgers, preparation of trial balance (list of account balances) and draft accounts
h) Consider the extent to which the client employees may be able to analyse and summarise the financial data and the relevance to the audit of work carried out by the client's internal auditors.
i) Consider the need for expert help and the involvement of other auditors in group audits
j) Determine the number and grade of audit staff to be allocated to each stage of the audit
k) Consultant members of the audit team to discuss any foreseeable problems. Often the partners will consult the manager who then becomes responsible for communication with other personnel used on that particular job. The preparation of a memorandum setting out the outline audit approach may be helpful.
l) A budget should be prepared allocating the time of each member (or grade) of the audit team. This budget should be used to control the time spent on that audit and any major variation (time both under and over spent) should be investigated by the manager. The use of the budget for the previous year would prove a valuable aid inn the preparation of this year's budget.
m) The client should be informed of the expected data of attendance by the auditors' staff and his agreement obtained.

The key failing in the planning process of auditors arise from:
a) the auditor commencing detailed. Testing before have complete the planning work, resulting in omissions, unnecessary work and misunderstandings with the client
b) inadequate documentation
c) lack of a proper understanding of the business

ISA 310 knowledge of the business, required auditors to obtain a knowledge of the business, sufficient to enable them to identify and understand those issues that may have a significant impact on the financial statements.

Knowledge is obtained both before accepting the client and after and should cover general economic factors, industry conditions affecting the client's business, the entity itself, the entity's products, market, suppliers, expenses and operations, the entity's financial performances and condition and the reporting environment.

Analytical procedures include comparison of financial information with prior periods, budget and forecasts and similar industries

It also includes consideration of predictable relationships such as the relationship of gross profit to sales, and payroll costs to the number of employees

Analytical procedures are used at the planning stage to assist in understanding the business and changes in the business, to identify areas of potential risk and to plan other procedures. The auditor's work on planning the audit will usually take place before annual financial statements are available. Accordingly, any analytical procedures performed at this stage of the audit will necessarily be based upon interim financial statements, estimated or budgeted financial statements, financial statements prepared for internal management purposes, or even, in some cases, the prior period's financial statements. The auditor will have expectations as to the relationship between various items in the financial statements and he will examine the financial data available at the planning stage to see whether his expectations match with recorded values. In any case where the results vary from expectations, the auditor should plan to conduct further work.

The auditor in developing his expectations should consider non- financial data and the likely impact of changes in factors external to the enterprise. For example, the knowledge that the client has increased its production capacity may lead to an expectation that sales revenue will have increased; on the other hand, the knowledge that the industry in general has suffered a downturn in demand may lead the auditor to expect sales to have decreased. A variation in gross profit margin may be the result of a change of sales mix or a change in production efficiency, or it may be the result of a misstatement. In any event, where the auditor's procedures efficiency, or it may be the result of a misstatement. In any event, where the auditor's procedures reveal variations from expectations he should plan to conduct further work to discover their cause.

## THE OVERALL AUDIT PLAN

Designing, documenting and recording of the audit plan

ISA 300 requires that auditors 'develop and document an overall audit plan describing the expected scope and conduct of the audit'. Matters to be considered include:-

a) the auditor's knowledge of the business
b) understanding the accounting and internal control systems
c) risk and materiality
d) the nature, timing and extent of procedures
e) co-ordination, direction, supervision and review

Although the planning containing the plan will be prepared before detailed audit work commences, it is important to bear in mine the fact that the planning stage does not end there. There will inevitably be adjustments to the original plan which

can only be discovered later. A significant breakdown in internal control may entail more work: a change in the timing of physical inventory counting may mean rescheduling the audit. The work of planning is therefore a continuous process throughout the audit.

**Developing the audit plan to meet the audit objectives**

Most practising firms have formalised the planning exercise for all but the very small audit assignment by using a standard planning memorandum in which evidence of initial decisions as to the appropriate procedures relevant to each assignment is recorded together with adjustments and additions to those procedures resulting from audit tests and review processes.

a) Highlight three objectives of audit planning
b) Outline six typical planning procedures

a) The objectives of the audit planing are:
   i) to ensure that appropriate attention is paid to the different areas of the audit. This involves, for example, ensuring that adequate time is devoted to the audit of inventories, which are usually higher risk, and that petty cash, which is usually lower risk, is not overaudited.
   ii) to ensure that potential problems are identified, such as weakness in the control over payables, which might lead to a material understatement
   iii) to facilitate review

Planing also assists in the proper allocation of work to the audit team and the co-ordination of work done by other auditors and experts.

b) I) Review of points raised in previous year's audit
   ii) Assess the effects of changes in legislation or accounting practice
   iii) Review of management accounts
   iv) Review of significant changes in systems
   v) Preparation of a timetable of audit work and a budget
   vi) Consideration of the extent to which client's staff or internal audit can assist in accounting matters.

**AUDIT RISK**

At the planning stage of the audit the auditor considers the extent and nature of the audit work he is to perform. It is common sense to realise that the 'riskier' the client is, the more work the auditor will plan to perform.

This risk might take many forms. It could be a risk that the client is operating in a volatile market, and may not succeed. It could be a risk that the financial statements are misstated because management are biased, or because internal controls have failed to detect and correct errors.

**Alternative approaches to an audit**

In order to achieve the audit objectives, evidence is required. In practice there are two main way this evidence is acquired.

a) **Systems approach**

The evaluation of internal control forms the basis of the audit. Detailed testing of items the financial
statements is kept to a minimum.

b) **Direct verification approach**

More detailed testing of items in the financial statements is carried out. The opinion based upon the
ability of the auditor to obtain sufficient appropriate evidence from number of sources.

In most situations the systems based approach is used as it is the most efficient method of arriving at an audit opinion.

**Risk-based audit**

The risk-based audit is a development of the system based audit. It is used by auditors in order to concentrate on high risk clients and on high risk areas of a client's business rather than perform detailed audit tests on all areas of a client's business. It enables a cost effective audit to be achieve.

The auditor should obtain an understanding of the accounting and internal control system sufficient to plan the audit and develop an effective audit approach. The auditor should use professional judgement to assess audit risk and to design audit procedures to ensure it is reduced to an acceptably low level'.

The auditor aims to ensure that there is no more than, say, a 5% risk that his opinion on the financial statements is incorrect. Or, in other words, he is ensuring that he is 95% certain that his opinion on the financial statements is correct. (Audit confidence is measured here as 100% minus audit risk). The percentage used (i.e 95%) is one of convention only. It implies that we can never be 100% sure of any conclusion. This is known as audit risk and means the auditors accept that 5 in every 100 reports issued may be incorrect. Audit risk can be set at any level. If auditors set it at 100%, there is no need to do any work at all, but there is a high risk of being found negligent! Auditors in practice 'set' audit risk at 4 - 6% and tailor their audit procedures accordingly.

Total audit risks, the risk of giving an inappropriate opinion when financial statements are materially misstated, has three components:

a) inherent risk (or IR)
b) control risk (or CR); and
c) detection risk (or DR).

These three risks multiplied together give total audit risk.

Remember though that it is the auditor's judgement that is always used to determine the value to be placed on these items - there is no hard and fast rule that the auditor can follow.

Broadly, the lower the risk level required, the greater the audit work required.

**Inherent risk, control risk and detection risk**

a) **Inherent risk**

Definition: The susceptibility of an account balance or class of transactions to material
misstatements, irrespective of related internal controls.

The risk will be affected by such items as how much the company is subject to market forces, the

cash situation of the company, the trading history of the company, the nature and incidence of
unusual transactions. Inventory, for example is more inherently risky than cash as there is greater
scope for manipulation and error. A business inn the construction industry is more risky than a food
retailer as it is more volatile.

b) Control risk
Definition: The risk that material misstatement could occur in an account balance or class of
transactions which would not be prevented or detected by the accounting or internal
systems

The risk will be affected by such factors as the control environment at the company including for
example, the integrity of the staff operating the system, the extent of supervisory controls, and the
strength of controls in particular account areas.

The preliminary assessment of control risk should always be high unless the auditor can either
identify controls that are likely to prevent or detect misstatements in each area, or, plans to perform
tests of control to support the assessment.

There should be full documentation of the accounting and internal control system in the auditor's
records, and of his assessment of control risk.

Evidence should be obtained through tests of control to support any assessment of control risk that is
less than high and the lower the assessment of control risk, the more evidence is needed to show that
systems are suitably designed and operating effectively.

When tests of control are complete, auditors should review their preliminary assessment of control
risk.

c) **Detection risk**
Definition: The risk that auditor's substantive procedures do not detect a material misstatement in an
account balance or class of transactions.

This is the 'variable' in the equation; the lower the auditor wishes detection risk to be, the more
substantive procedures must be performed and the larger sample sizes must be. Detection risk can

never be eliminated entirely because it encompasses human error.

The level of detection risk will determine the type and amount of audit testing to be carried out. If detection risk cannot be reduced to an acceptably low level, a qualified audit opinion should be issued. Detection risk is found by using the equation already given above, but re-arranging it to give:

$$DR = AR \div (IR \times CR)$$

This simply means that the less effective the control system, and the greater the inherent risk in the business, the greater the level of detection risk. The auditor will therefore need to increase his audit testing. This will compensate for the poorer controls of the client and/or the greater risk arising from the nature of the client's business.

**Entity risk**

The combination of inherent risk and control risk is referred to as client risk or entity risk i.e both these risks relate to a client as an entity. It is both elements of entity risk which the auditor needs to consider at the planning state although control risk will need to be re-considered when the client's accounting systems are examined in detail.

Many auditors use formal procedures at the planning stage of the audit in order to assess whether the client is high or low risk. This is in form of enemaluation questionnaire

## PLANNING MATERIALITY

**Concept of materiality**

An item is material of its omission or misstatement could influence the economic decisions of users taken on the basis of the financial statements.

Materiality is considered in planning audit procedures and in evaluating the effect of misstatements.

The auditor in planning the audit therefore needs to establish materiality levels to ensure that any material misstatement or omissions in the accounting records are discovered.

**Establishing materiality levels**

There are two levels of materiality to be considered, materiality at the overall financial statement level and materiality for individual balances and classes of transactions. The latter is usually derived from the former.

There is an inverse relationship between materiality and the level of audit risk. The higher the materiality level, the lower the audit risk and vice versa. Where, for example, materiality is low, audit risk is increased and the auditor can compensate for this by either carrying out additional tests of control, or by increasing substantive procedures. Either will have the effect of reducing the assessed level of control risk.

Materiality at the planning stage is often set at a lower level than is strictly necessary in order to reduce the risk of undiscovered misstatements, and to deal with the

potential problem of having to adjust materiality levels at a later date in the light of evidence obtained.
The most common bases used are a percentage of sales, pre-tax profit or asset values

## AUDIT PROGRAMMES

### Designing the audit programme

ISA 300 requires auditors to 'develop and document an audit program setting out the nature, timing and extent of planned audit procedures required to implement the overall audit plan'.
The audit programme is essentially a record of the audit testing. It may also specify audit objectives for each area and time budgets. It shows the members of staff who have carried out the work and contains evidence of review of work.

The audit programme serves as:

a) a set of instructions to the audit team
b) a means to control and record the proper executive of the work
c) a record of the audit procedures to be adopted, the audit objectives, timing, sample size and basis of selection for each area

The audit programme is an important part of the auditor's working papers and records a significant part of the audit evidence required to justify the audit opinion.
Audit plans and the audit programme should be revised as necessary during the course of the audit

### Standardised audit programmes and professional judgement

Definition: A standardised audit programme is a pre-prepared listing of objectives and tests which is
used on any audit.
Standardised audit programmes are common in practice and are often drawn from a database of procedures in large firms.
Their advantages are that they streamline work and act as a checklist to ensure that all important areas are considered. They improve the efficiency of the audit and facilitate delegation and control.

However they have a disadvantage in that, if used slavishly, they may stifle professional judgement. Auditors need to use professional judgement in their work as all audits will be different and therefore tests need to be designed for the different circumstances found in each audit

A middle way is used by some firms who, in their audit manual, will suggest the items to be included in an audit programme rather than requiring a standard form to be filled in.

## STAFFING AND TRAINING ISSUES

### Staffing

Planning needs to cover such points as:

- number of staff required

- level of expertise required;
- length of time each member of staff will be needed;
- exact timing of their work.

To assist in the allocation of staff to each stage of the audit, larger firms will designate job titles to each member of the audit team.

| Job tile | Job description as regards the audit |
|---|---|
| Partner | Agree fees with client |
| | Review audit |
| | Sign audit report (after approval of accounts by directors) |
| Manager | Set broad time limits to job |
| | Assign staff to job |
| | Agree detailed timetable with supervisor or senior |
| | Review staff requirements and timetable at various stages |
| | Review audit in detail at end of interim and final audits |
| Supervisor (or junior manager) | Take charge of large jobs e.g a large group of companies, where each company or division is audited by a senior. |
| Senior | Take charge of the audit |
| | Agree audit timetable with client, and manger or supervisor |
| | Decide on detailed audit work |
| | Compile audit working papers |
| Clerks, semi-seniors And juniors | Perform detailed audit work assigned by seniors. |

**Training**

Membership via qualification with an appropriate professional body is a pre-requisite of entitlement to audit. Training requirements include the setting of examinations and practical training. The practical training should not stop when an auditor has qualified. The practical training continues through the requirement to undertake continuing professional education (CPE)

Large firms run internal training course to satisfy the CPE requirement; smaller firms are often members of a training consortium which provide equivalent course.

**Recognising the needs and limitations of the use of experts**

ISA 620 using the work of an expert recognises that the auditor's education and experience enable him to be knowledgeable about business matters in general, but he is not expected to have the expertise of a person trained in the practice of another profession, such as an actuary or engineer. He may need to obtain evidence in the form of reports, opinions, valuations or statements from an expert. And ' when using the work performed by an expert, the auditor should obtain sufficient appropriate audit evidence that such work is adequate for the purposes of the audit.'

The following points are relevant to this area of auditing;

a) **Determining the need to use the work of an expert**

One element of the planning of an audit would be the consideration of whether specialist evidence (From lawyers, stockholders, geologists, actuaries, etc) may be necessary for the auditor to form his opinion. Factors affecting this decision would include the materiality of the item concerned, the risk of misstatement based on the nature and complexity of the matter, and the quantity and quality of other audit evidence available.

If it decided that expert evidence is needed, the expert should be engaged or employed either by the client, or by the auditor with the consent of the client. If the client refuses, for whatever reasons, and there is no other source of evidence for the item concerned, the auditor should qualify his audit report.

b) **Competence and objectivity**

In order to be able to rely on the evidence provided by the expert, the auditor must be satisfied that the expert is competent and objective. Competence would be evidence by certification, licensing, or membership of an appropriate professional body, and suitable experience and reputation.

The expert will not be sufficiently objective if he is related to the entity by being financially dependent on it or by having an investment in it. Objectivity may also be impaired where the expert is employed by the entity.

c) **Scope of the expert's work**

Once a specialist is appointed, there should be a consultation between the auditor, client and specialist to determine the scope of the expert's work. This should clarify the objectives of the expert's work, sources of information available to him, the form and content of the report required, the intended use of the work, the expert's access to books and records, and the assumptions and methods to be used by him.

d) **Assessing the work of the expert**

The auditor will need to assess the appropriateness of the expert's work. He should, therefore, examine the specialist's report and determine if it is acceptable in the light of other work performed

and the auditor's knowledge of the business. He should obtain an understanding of the assumptions
and methods used and considered whether they are appropriate and reasonable. If the auditor is not
satisfied with the expert's work, he should discuss the problem with the client's management and
with the expert. It may occasionally be necessary to obtain the opinion of a second expert.

e) **The audit report**

Generally, no reference should be made to the use of an expert in the audit report as this may imply a
division of responsibilities or be misunderstood as a qualification. If it becomes necessary to modify
the audit report, it may be appropriate to refer to the expert, but this is only appropriate with the
expert's permission. If this is refused, legal advice may be necessary.

## AUDIT EVIDENCE

ISA 500 audit evidence requires that auditors 'obtain sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the audit opinion.
'Sufficient' relates to quantity of evidence, 'appropriate' relates to the quality or reliability and relevance of evidence
Evidence will normally be sought from a variety of different sources as evidence is persuasive rather than conclusive and auditors seek reasonable, not absolute assurance.

### Sufficient, appropriate evidence

The auditor's judgement as to what constitutes sufficient appropriate evidence is influence by such factors as:

a) the assessment of inherent risk at the financial statement level and the individual balance or class of transaction level
b) the nature of the accounting and internal control systems and control risk
c) the materiality of the item
d) experience gained during previous audits
e) results of audit procedures
f) the source and reliability of the information available

We have already noted that the assessment of risk affects the amount of evidence required.
Risk may be in a specific area, for example inventory or bad debt allowances are always subjective and hence high risk areas. Alternatively it may be a risk running through the financial statements as a whole. For example;

a) the auditor may have found material errors in the past; he may lack confidence in those preparing the records.
b) the company may be approaching insolvency and hoping to impress potential financial backers by showing the figures in a better light.
c) a bonus to be paid to management may be based on reported results.

**Accounting and internal control systems:**

ISA 400 Assessments and Internal Control requires that auditors obtain and document an understanding of the accounting system and control environment sufficient to determine their audit approach. The means of obtaining and documenting that understanding, by the use of narrative notes, flowcharts etc. Audit approach will broadly comprise either.

a) a system based approach whereby the auditor obtains comfort on the adequacy of the system by means of tests of controls, supplemented by a reduced level of substantive testing; or
b) a wholly substantive approach

The former is by the more efficient approach but the letter is often necessary in small business where the accounting and internal control systems are weak.

ISA 500 audit evidence requires auditors to obtain sufficient, appropriate evidence to support the assessed level of control risk.

Test of control are performed to obtain audit evidence about the effectiveness of the:

a) design of the accounting and internal control system for the prevention, detection and correction of misstatements
b) operation of internal control through the period.

So, for example, if the preliminary assessment of controls over payable is low risk (i.e the system of controls over payables appears to be goods at the planning stage) and tests of controls show that the controls are in fact good (i.e postings to payables are properly checked and authorised etc), it may be possible to reduce the sample of payables selected for circularisation or reconciliation at the year end.

Note that where control risk is assessed as less than high, auditors must document the basis for that conclusion and that it is often necessary to assess inherent risk and control risk together.

Deviations from prescribed controls may result from changes in personnel, human error or changes in the volume of transactions. The idea of an ‘exception’ is an important one. The auditor cannot excuse failure of a control on the grounds that the amounts involved were small. If a control can fail in respect of a small monetary amount, it is as likely to fail with a significant amount.

The auditor will not be able to take comfort from the operation of controls if he has found any exceptions - unless he can satisfy himself that the exception is an isolated departure. An example of this could be an error made on a day when a temporary clerk was employed where there are no errors in any other time periods. The auditor may have to take that day and test it more extensively (i.e not rely on internal controls), but he could rely on controls over the remaining period. He is effectively splitting the year into two populations, taking a systems approach for one, a substantive for the other. If substantially different controls are used at different times during the period, auditors need to consider each separately.

Where the exceptions found are unacceptably high, the effect is to require a reassessment of the control risk ie, the internal control system cannot be relied upon to the extent originally envisaged. Control risk is therefore increased and therefore the substantive testing will need to be increased. In addition the nature of the errors found may result in the auditor concluding that his initial assessment of the inherent risk is incorrect. You need to appreciate that the auditor in planning the audit is not possession of detailed facts about the company's operations and the testing procedures provided him with further information that may be his original opinion.

Bear in mind that in practice it can be difficult to distinguish between a series of isolated deviations from the application of a control procedure and the non-functioning of that procedure as a whole. Consider the following: 'Our regular member of staff was off sick in March, in April we employed a temporary clerk, in May we had a reorganisation and in June we had a full systems failure and spent all of our time reinputting information. For these reasons only half of your sample of credit notes have been authorised.' On the assumption that credit notes were authorised for the rest of the period, do you consider the procedure to have been operating effectively, or has it broken down? It is of course a matter of professional judgement.

Substantive procedures - relevance

Substantive procedures are tests performed to obtain audit evidence to detect material misstatements in the financial statements and are of two types;

a) tests of details of transactions and balances analytical procedures
b) analytical procedures

The relevance of the audit evidence should be considered in relation to the overall audit objectives of forming a n opinion and reporting on the financial statements. To achieve this objective the auditor needs to obtain evidence to support the following financial statement assertions (i.e assertions by management embodied in the financial statements.

a) Existence: an asset or liability exists at a given date (i.e the assets and liabilities are not overstated.

Auditors spend a great deal of time on this assertion confirming the existence of assets such as
tangible non-current assets, inventories, receivable and cash. Clearly this is a fundamental assertion;
no other rights or obligations relating to the asset or liability).

b) Rights and obligations: an asset or liability pertains (i.e ' belongs') to the entity (i.e the entity has legal or other rights or obligations relating to the asset or liability).

The auditor must ensure that it is the business which owns the asset at the balance sheet date. There
are many situations where an asset could be on the business premises but belong to someone else.
Inventories, for example, may have been sold but not yet delivered. In a small business, some of the

assets may belong to the major shareholder.

c) Occurrence: a transaction or vent occurred during the relevant accounting period (i.e has correct cut-off been applied?)
d) Completeness: there are no unrecorded assets or liabilities, transactions or events (i.e the assets, liabilities, transactions and events are not understated.)
e) Valuation: the asset or liabilities is recorded at an appropriate carrying value; i.e for a non-current asset this would be initial cost plus increases (e.g revaluations), minus decreases (e.g depreciation and write downs to recoverable value).
f) Measurement: a transaction or event is recorded at the proper amount in the correct period. This refers to income statement items and prepayments and accruals
g) Presentation and disclosure: must be in accordance with relevant legislation and accounting standards (i.e the applicable financial reporting framework)

Two of the most important assertion tests are for completeness and existence. These are tests going in the 'opposite direction' to each other.

If for example the auditor wishes to test for the completeness of payables, he should take a sample of source documents such goods received notes, and trace them through the related invoices, daybooks and ledgers to the financial statements in the form of payables.

If on the other hand he wishes to test for the existence of receivables, he should start at the other end with a sample of receivables from the financial statements and trace these back through the ledgers, daybooks and invoices to the source documentation ie the orders or despatch notes.

Auditors in practice are concerned about the completeness or understatement of expenses and liabilities, and the existence or overstatement of assets and income. However, remember that if the overstated credit or an understated debit. If he discovers an understated credit there muse also be either an understated debit or an overstated credit.

The best test of the existence of an asset is to check its physical existence if it is tangible and the entity's document to title if it is not. Just because an asset exists does not mean to say that it belongs to the reporting entity; documentary evidence is needed to prove ownership.

Substantive tests may be incorporated with other procedures such as tests of control. An invoice for example is checked for both its accuracy (substantive) and its authorisation (test of control). The same invoices may also be used as part of a 'walk through' test which the auditor will perform as part of his preliminary assessment of internal controls at the planning stage.

**Substantive procedures - reliability**

Although the reliability of audit evidence is dependent upon the particular circumstances, the following general presumptions may be found helpful:

a) evidence obtained form external sources is more reliable than that obtained from the entity's record

b) evidence obtained from the entity's record is more reliable where the accounting and internal control system operate effectively;
c) evidence obtained directly by auditors by such means as analysis and physical inspection is more reliable than evidence obtained by or from the entity;
d) documentary evidence is more reliable than oral evidence

Documentary evidence is least reliable if created and held by the entity (e.g invoices). It is more reliable if it is created by third parties and held by the entity (e.g supplier statements). It is most reliable if it is created by third parties and held by the auditor (e.g confirmation of receivables).

The auditor should consider whether the conclusions drawn from differing types of evidence are consistent with one another. When audit evidence obtained from one source appears inconsistent with that obtained from another, the reliability of each remains in doubt until further work has been done to resolve the inconsistency. However, when the individual items of evidence relating to a particular matter are all consistent, then the auditor may obtain a cumulative degree of assurance higher than that which he obtains from the individual items. This is a form of 'synergy'.

Unfortunately, there are no hard and fast rules against which the reliability of evidence are by their nature difficult, and no satisfactory solution is as yet available. Most of the negligence claims against auditors arise where the quality of audit evidence is weak. Such cases rarely get into court but substantial cash settlements have been made out of court by many firms of auditors.

These settlements give a clear indication of the cost of lack of quality control and consequent weakness of audit evidence. Clearly when things go wrong in a business, a client will consider suing his auditors. The auditor must ensure that he has sufficient evidence to defend himself against such a claim.

**Activity**

Explain each of the following techniques of gathering audit evidence and give an example of each:

a) Inspection
b) Observation
c) Enquiry and confirmation
d) Computation
e) Analytical procedures

**Activity solution**

a) **Inspection** - this covers the physical review or examination of records, documents and tangible assets. An example of a test of controls is examining copy sales invoices for authorisation. An example of a substantive procedure would be checking the physical existence of a tangible asset. Additional work may be required to determine ownership, valuation and contractual obligations.
b) **Observation**- this technique involves looking at a process or procedure being performed. However, this observation may not be typical of the usual conduct of the procedure. An example is the distribution of wage packets to see that internal control procedures are adhered to or the observation by auditors of inventories being counted in accordance with instructions.

c) **Enquiry and confirmation** - seeking relevant information from knowledge persons inside or outside the enterprise, whether formally or informally, orally or in writing. The reliability of this techniques depends on the qualification and integrity of the source. An example is the seeking of formal representations from management on the value of a material subsidiary company in an overseas country. Confirmation consists of seeking to corroborate responses to enquiry information in the accounting records (e.g confirmation of receivable balances).
d) **Computation** - checking the arithmetical accuracy of source documents and accounting records or performing independent calculations (e.g checking the addition of the trial balance)
e) **Analytical procedures** - the analysis of significant ratios and trends including the resulting investigation of fluctuations that are inconsistent with other information, or deviate from predicted amounts.

Note that all of the above can be used as a rest of control or as substantive procedures and that many can be performed using computer assisted audit techniques which are dealt with in a later chapter.

**Analytical procedures as substantive procedures**

Analytical procedures deal with comparisons of financial and non-financial information and were considered above in the content of planning. Analytical procedures used as substantive tests can be used alone where the total amounts involved are immaterial and in conjunction with detailed tests of transactions and balances elsewhere. These procedures provide good 'overall' evidences as to the accuracy of a balance or class of transactions. Examples include the following:

a) A comparison of payroll costs on a monthly basis taking account of wage rises, starters and leavers and seasonal work.
b) A comparison of sales with expenses, on a monthly basis and as a comparison with prior years
c) A comparison of the ageing of inventories or receivable on a monthly or quarterly basis and calculation days sales outstanding or inventory turnover.

Analytical procedures are used widely but are limited by factors such as the accuracy and predictability of relationships and the availability, relevance and comparability of information. They are also limited by the auditor's knowledge of the business and the availability of other types of evidence. It is common for analytical procedures to be performed on management accounts.

**Backtor**

a) I) Flowcharts provide evidence of the system in operation and, as they were prepared by

the audit staff, the value of the evidence is good. The tests of control demonstrated that the

system does in fact operate as recorded and, if it is necessary, this could be further substantiated

by walk through tests.

ii) The statement provides evidence as to the accuracy of the depreciation chart the income statement, and the net book value of plant in the balance sheet. As oral evidence from someone from within the enterprise, it is not particularly reliable. Further evidence could be obtained by considering the useful live

similar items of plant in the past or consulting trade journals which may detail relevant information.

iii) The newspaper report provides evidence that the auditor may wish to consist when carrying out his overall review of the financial statements of the enterprise. It is also of importance in considering the continuing commercial viability of company. As the evidence is from a source independent of the company considered to be reliable, but it must be borne in mind that newspaper reports be based upon hearsay and not just fact. The quality of the evidence could be improved by discussing the matter with management or considering volumes sales in recent months.

iv) The letter provides evidence that the company is a going concern. As the evidence is from a source external to the company, it is reliable, but would be more so if the letter had been sent direct to the auditors. To substantiate the evidences the normal bank letter would be sent.

v) Attendance at a client's inventory count and performance of test counts provide evidence as to the existence and valuation of inventories. As the evidence documentary, was prepared by a member of the audit firm, and is based on physical inspection, it is very reliable. To support the evidence obtained, the items would need to be traced through to the final inventory valuation.

vi) Direct confirmation from a customer provides evidence as to the accuracy of the receivables figure included in the balance sheet. As the evidence is documentary and from a source external to the company, it is reliable. To further support the evidence, the receipt of cash from the customer, after the year-end, could be checked.

b) If items of evidence are inconsistent, then the reliability of each remains in doubt until the inconsistency had been resolved. With respect to the example given, the auditor would need to find evidence to explain the increased useful life from, for example, trade journals, etc.

## WORKING PAPERS

### Recording the audit process.

ISA 230 documentation states that the auditors should document matters which are important in providing evidence to support the audit opinion and evidence that the audit was carried out in accordance with ISAs'. Working papers should be 'sufficiently complete and detailed to provide an overall understanding of the audit.' They should record:

a) planning information
b) the work done and when it was done
c) results and conclusions

The extent of working papers is a matter of professional judgement and it is neither necessary nor practical to record every matter the auditor considers. It may be useful to consider what would be necessary to provide another auditor who had no previous experience with the audit with an understanding of the work performed and the basis of principal decisions, but not the detailed aspects of the audit.

Audits are required to record all matters which are important in supporting the report and in particular their reasoning and sufficient matters that requires the exercise of judgement. It is in areas such as these that the auditor may subsequently be questioned, often with the benefit of hindsight, and it is important for the auditor to be able to show what he knew at the time.

Working papers should be made available to third parties without client consent and extracts from the papers can be made available to the client entirely at the discretion of the auditor. However the auditor's working papers are not a substitute for proper accounting records!

ISA 230 required that appropriate procedures should be undertaken to maintain the confidentiality and safe custody of working papers and for their retention for a sufficient period to meet regulatory requirements.

**Contents of working papers**

a) Information likely to be of continuing importance on requiring audits i.e permanent file information such as the company's constitutional documents and other information concerning the legal and organisational structure of the entity.
b) Auditing planning information e,g audit planning memoranda and time budgets
c) Details of internal control and the accounting systems of the business, including the auditor's evaluation and assessment of risk.
d) Details of audit work carried out, including notes of errors, action taken and conclusions drawn, including work carried out by other auditors.
e) Evidence of review of audit work
f) Supporting schedules of financial statements
g) Audit summary including significant and unusual mattes
h) Copies of approved financial statements and auditors' reports, letter of representation, engagement letters, and reports to management on weaknesses in internal controls

**Standardisation of working paper**

Standardisation of working papers offers several advantage

a) It improves the efficiency of the preparation and review of working papers
b) If facilitates the delegation and review of work

## AUDIT EVIDENCE

SAS 400 Audit evidence requires that auditors "obtain sufficient appropriate audit evidence to be able to draw reasonable conclusions on which to base the audit opinion. Sufficiency and appropriateness are interrelated and apply to audit evidence obtained from both tests of control and substantive procedures.

Sufficiency is the measure of the quantity of audit evidence appropriateness is the measure of the quality or reliability of audit evidence and its relevance to a particular assertion.

Usually audit evidence is persuasive rather than conclusive and auditors therefore often seek audit evidence from different sources or of a different nature to support the same assertion.

**Sufficient, appropriate audit evidence:**

The auditor will use judgement to decide what is sufficient and appropriate in the particular circumstances since he seeks to provide reasonable, net absolute, assurance that the financial statements are free from material misstatements.

The auditors judgement as to what is sufficient audit evidence is influenced by such factors as:

- The assessment of the nature and degree of risk of misstatement of both the financial statement level and the account balance or class of transactions level.
- The nature of the accounting and internal control systems, including the control environment
- The materiality of the item being examined
- The experience gained during previous audits and the auditors' knowledge of the business and industry;
- The findings from audit procedures, and from any audit work carried out in the course of preparing financial statements, including indications of fraud or error; and
- The source and reliability of information available

If unable to obtain sufficient appropriate audit evidence, auditors, auditors consider the implications for their report.

Since the assessment of risk affects the amount of audit evidence required enough evidence need to be gathered in specific areas of risk such as:

- where the auditor may have found material errors in the past, and the lacks confidence in those preparing records;
- where the company is approaching insolvency and is helping to impress potential financial backers by showing the figures in a better light.
- where any bonus to be paid to management may be based on reported results
- where an amount has been derived as an estimate based on subjective procedures

**Accounting and Internal Control Systems**

The aspects of the relevant parts of accounting and internal control systems about which auditors seek to obtain audit evidence are:-

a) Design: the accounting and internal control systems are capable of preventing or detecting material misstatements; and
b) Operation: the systems exist and have operated effectively throughout the relevant period.

**The audit approach will broadly comprise either**

i) a systems based approach where the auditor obtains comfort on the adequacy of the system by means of tests of controls, supplemented by a reduced level of substantive/testing or
ii) a wholly substantive approach in which extensive detailed testing is performed. (common for small business where the accounting and control systems are weak and the auditor needs to use this method to obtain sufficient and appropriate evidence).

**Accounting system**
Means a series of tasks and records of an entity by which transactions are processed as a means of maintaining financial records. Such systems identify, assemble, analyse, calculate classify, record, summarise and report transactions and other events.

**The internal control system**
Includes all the polices and procedures adopted by the directors and management of an entity to assist in achieving their objective of ensuring as far as practicable, the orderly and efficient conduct of its business, including adherence to internal policies, the safeguarding of assets, the prevent on and detection of fraud and error, the accuracy and completeness of the accounting records, and the timely preparation of reliable financial information.

The auditor should make a preliminary assessment of control risk and then plan and perform tests of control to support that assessment. e.g if the preliminary assessment of controls over creditors is low risk (the system of controls over creditors appears to be good at the planning stage) tests of control show that the controls are in fact good (proper posting, checkings and authority) it may be possible to reduce the sample of creditors selected for circularisation or reconciliation at the year end.

Where control risk is assessed as less than high, auditors must document the basis for that conclusion and that it is often necessary to assess inherent risk and control risk together. Effective controls may lead the auditor to reduce the controls.

Deviations from prescribed controls may result from change in personnel, human error or charges in the volume of transactions.
The auditor cannot excuse failure of a control on the grounds that the amounts involved are small; a control that fails for small amounts will fail with significant amounts as well.

The ideas of an exception is an important one; the auditor will not be able to take comfort from the operation of controls if he has found any exceptions - rules he can satisfy that the exception is an isolated departure where the exceptions found are unacceptably high, the effect is to require a reassessment of the control risk since the ICS cannot be relied upon to the extent originally envisaged. Control risk is therefore increased and therefore the substantive testing will need to be increased. In addition the nature of errors found may result in the auditor concluding that his initial assessment of the inherent risk is incorrect. You need to appreciate that the auditor in planning the audit is not in possession of detailed facts about the company's operations and the testing procedures provided him with further information that may be his original opinion.

Note that in practice it can be difficult to distinguish between a series of isolated deviations from the application of a control procedure and the non-functioning of that procedure as a whole.

**Substantive procedures - relevance:**
These are those tests of transactions and balances, and other procedures such as analytical review, which seek to provide audit evidence as to financial statements assertions such as completeness, Existence, valuation, presentations, disclosures etc.

The relevance of the audit procedure should be considered in relation to the overall audit objective of forming an opinion and reporting on the financial statements.

**Existence:** That an asset or liability exists at a given date.
Auditors spend a great deal of time on this assertion confirming the existence of assets such tangible fixed assets, stocks, debtors and cash clearly this is a fundamental assertion and management is in a way stating that the items are not wrongly stated and that the enterprise has no other rights or obligations relating to the assets or liabilities.

**Valuation**: That the asset or liability is recorded at an appropriate carrying value: i.e the initial cost or valuation plus additions or revaluations, minus depreciation, write downs or disposals.

**Rights and obligations (ownership)**
That an asset or liability belongs or pertains to the entity at a given date.
The auditor must ensure that it is the business which owns the asset at the balance sheet date and belongs to no one else and identify situations when the asset is on the business premises but belongs to a different entity altogether.

**Occurrence:** That a transaction or event occurred during the relevant accounting period. The auditor ensures that proper cut off procedures have been executed.

**Completeness**: That there are no unrecorded assets or liabilities, transactions or events. The auditor must ensure that all these items are correctly stated.

**Measurement:** That the transaction or event is recorded at the proper amount and revenue or expense is allocated to the proper period. (This assertion refers to profit and loss account items and prepayments and accruals).

**Presentation and disclosure**: That an item is disclosed, classified and described in accordance with the applicable reporting framework (e.g relevant legislation and applicable accounting standard).
**Authorisation**. That all transactions are properly authorised.

Audit evidence is usually obtained to support each financial statement assertion. Audit evidence regarding one assertion (e.g existence of stocks) does not compensate for failure to obtain audit evidence regarding another assertion (e.g valuation). Tests may, however, provide audit evidence about more than one assertion (e.g testing subsequent receipts from debtors may provide some evidence regarding both their existence and valuation.

Two of the most important assertion tests are for the completeness and existence. These tests go on in opposite directions to each other (directional testing); If the

auditor wishes to test for completeness of creditors, he should take a sample of source documents such as GRN's and trace them through the related invoices, day books and ledgers to the financial statements in the form of creditors. However to test existence of debtors, the auditor starts at the other end with a sample of debtors from the ledgers, day books and invoices to the source documentation such as the orders or despatch notes.

The risk is to understate expenses and liabilities and overstate assets and income. Therefore if the trial balances, and the auditor discovers an overstated debit, there must also be either an overstated credit or an understated debit. If he discovers an understated credit, there must also be either an understated debit or an overstated credit.

Just because an asset exists does not mean that it belongs to the reporting entity and documentary evidence should be sought to prove ownership.

The nature, timing and extent of substantive procedures depend amongst other factors, on the auditors' assessment of the control environment and accounting systems generally and on the inherent and control risks relating to each assertion, as well as on any evidence obtained from audit work performed during the preparation of the financial statements. Where tests of control provide satisfactory evidence as to the effectiveness of accounting and internal control systems, the extent of relevant substantive procedures may be reduced, but not entirely eliminated.

Substantive procedures may be incorporated within other procedures e.g tests of control may be designed as dual purpose tests to provide evidence of a substantive nature, and such evidence may be obtained as part of the nature, and such evidence may be obtained as part of the work carried out to make preliminary assessments of risks of error.

**Substantive procedures - relevance.**

The reliability of audit evidence is influenced by its source; internal or external, and by its nature; visual, documentary or oral. While the reliability of audit evidence is dependent on individual circumstances, the following generalisations may help in assessing that reliability.

1- Audit evidence from external sources (e.g confirmation received from a third party) is more reliable than that obtained from the entity's records especially where the external source is independent.
2- Audit evidence obtained from the entity's records is more reliable when the related accounting and internal control systems operates effectively.
3- Evidence obtained directly by auditors such means as analysis and physical inspection is more reliable than evidence obtained by or from the entity.
4- Evidence in the form of documents and written representations is more reliable than oral representations
5- Original documents are more reliable than photocopies telexes or facsimiles

Documentary evidence created by a third party and held by the auditor is more reliable than that created by the third party and held by the entity or that created by the entity and held by the entity.

Audit evidence is more persuasive when items of evidence from different sources or of a different nature are consistent. When the audit evidence from one source is inconsistent with that from another, auditors determine additional procedures necessary to resolve the inconsistency. Where the individual items of evidence relating to a particular matter are all consistent, the auditor obtains a cumulative degree of assurance higher than that which he obtains from the individual items. This is a form of 'synergy'.

All the same, the reliability of evidence is very much a matter for the auditor's judgement of each situation in its own right, using his experience and knowledge of the client.

The auditor should always consider whether or not the evidence that he has would be sufficient to defend himself in a court of law.

The auditor should consider the relationship between the cost of obtaining audit evidence and the usefulness of the information obtained. However, the existence of difficulty or expense is not in itself a valid basis for omitting a necessary procedure.

**Procedure for obtaining audit evidence**

Auditors obtain audit evidence by procedures the choice of which is dependent, in part, upon the period of time during which the audit evidence sought is available and the form in which accounting records are maintained. The procedures include:-

1- **Inspection**

This consists physical review or examination of record, documents or tangible assets. Inspection of records and documents provides audit evidence of varying degrees of reliability depending on their nature and source and the effectiveness of the ICS over their processing.

A test of control would involve say examination of copy sales invoices for authorisation whereas a substantive procedure would involve checking of the physical existence of a tangible asset i.e inspection of a tangible assets provides reliable audit evidence about its existence but not necessary as to its ownership or value.

2- **Enquiry**

Consists seeking relevant information from knowledgeable persons inside or outside the enterprise, whether formally or informally, orally or in writing.. The reliability of this technique depends on the qualification and integrity of the source. E.g formal representations of management on the value of a material subsidiary company in an overseas country.

3- **Confirmation**

Confirmations consists of the response to an enquiry to corroborate information contained in the accounting records

e.g communication with debtors.
Responses to enquires may provide auditors with information not previously possessed or with corroborative audit
evidence.

4- **Computation**
Consists of checking the arithmetical accuracy of source documents and accounting records or performing
independent calculations.

5- **Re-performances**
Of controls such as the bank reconciliation to ensure they were performed correctly

**Analytical procedures**
Consists of the analysis of relationships between items of financial data, or between items of financial and non financial data, deriving from the same period, or between comparable financial information deriving from different periods or different entities, to identify consistencies and predicted patterns or significant fluctuations and unexpected relationships and the results of investigations therefrom.

These procedures provide good overall evidence as to the accuracy of a balance or class of transactions. Analytical procedures are commonly performed on management accounts to avoid the possibility of auditing are set of information and reporting on another.

Where any significant fluctuation or unexpected relationships are identified, the auditor must investigate, obtain explanations to support the deviation from the expected outcome and obtain corroboratory evidence to support the deviation.

Analytical procedures are widely used by are limited by the adequately of ICS (if weak the information is not reliable).

**The relevance and reliability and additional procedures regarding given evidential matters**

1. Flowcharts of the company's payroll routine prepared by the audit assistant backed up by tests of control. Flowcharts provide evidence of the system in operation and, as they were prepared by the audit staff, the value of the evidence is good. The tests of control have demonstrated that the system does infact operate as recorded and, if it is felt necessary, this could be further substantiated by walk through tests.
2. An overall statement by the production director that the expected working life of plant acquired during the year is 10 years.

The statement provides evidence as to the accuracy of the depreciation change in the profit and loss account and the
net book value of plant in the balance sheet. As it is oral evidence from someone within the enterprises, it is not
particularly reliable. Further evidence could be obtained by considering the useful lives of similar items of plant in
the past or consulting trade journals which may detail the relevant information.

1. A news paper report that new technology is expected to have an adverse effect on the sales of products representing 20% of the company's turnover.

The newspaper report provides evidence that the auditor may wish to consider when carrying out his overall review of the financial statements of the enterprise. It is also important in considering the continuing commercial viability of the company. As the evidence is from a source independent of the company, it is considered to be reliable, but it must be borne in mind that newspaper reports can be based upon hear say and not just fact,. The quality of the evidence could be improved by discussing the matter with management or considering volumes of sales in recent months.

2. A letter to the managing director from the company's bank manager indicating that the bank intends to extend overdraft facilities for a period of one year.

The letter provides evidence that the company is a going concern. As the evidence is from a source external to the company, it is reliable, but would be more so if the letter had been sent direct to the auditors. To substantiate evidence, the normal bank letter would be sent.

3. List of items of stock control by a member of your firm of certified accountants during observation of the company's stock count.

Attendance at a client's stock take and performance of tests counts provide evidence as to the existence and valuation of stock. As the evidence is documentary, was prepared by a member of the audit firm, and is based on physical inspection, it is very reliable. To support the evidence obtained, the items would need to be traded through to the final stock valuations.

4. A letter from a debtor to your firm in reply to a confirmation request indicating agreement with the balance as recorded in the books of the client.

Direct confirmation from a debtor provides evidence as to the accuracy of the debtors figure included in balance sheet. As the evidence is documentary, and from a source external to the company, it is reliable. To further support the evidence, the receipt of cash from the debtors, after the year-end, could be checked.

## WORKING PAPERS

Working paper are the material that auditors prepare or obtain, and retain in connection with the performance of the audit. Working papers may be in form of data stored on paper, film, electronic media or other media. Working papers support amongst other thins, the statement in the auditors' report as to the auditors' compliance or otherwise with auditing standards, and this record compliance with auditing standards to the extent that this is important in supporting their report.

“Auditors should document in their working papers matters which are important in supporting their report”). In short working papers record;

a) the planning and performance of the audit
b) the supervision and review of the audit work; and
c) the audit evidence resulting from the audit work performed which the auditors consider necessary and which they have relied to support their report.

**Recording the audit process:**

Auditors should record in their working papers their reasoning on significant matters that require exercise of judgement. It is such areas that the auditor may subsequently be questioned, often with the benefit of hind sign, in such circumstances it is important that the auditor demonstrates the relevant facts that were known at the time the auditor drew his conclusion.

Working papers should provide an experienced auditor with no previous connection with the audit with an understanding of the work performed and the basis of decision taken.

**Form and control of working papers**

The form and content of working papers are affected by matters such as;

- the nature of the engagement;
- the form of the auditors report;
- the nature and complexity of the entity’s business.
- the nature and condition of the entity’s accounting and internal control system
- the needs in the particular circumstances for direction, supervision of the work of members of the audit team, and
- the specific methodology and technology of auditors use.

The following are general guidelines to be followed in the preparation of working papers;

- permanent ink should be used;
- descriptions should be given of audit symbols used
- All working papers must be prepared neatly and tidily so that they clearly concisely and logically show the schedules,
  results of tests etc. They should be headed with the client’s name and file number, period end, subject of working paper
  reference of working paper within files, initials of preparers and date of preparation plus initials of reviewer and date of
  review.

Working papers are usually divided between two files;-

a) **The current file:**

The current file will contain the work performed for the current period; Typical contents need not be memorised but
it is important to understand the type of information held on this file.
All working papers which records tests must be concluded by the person undertaking the test with a summary of the
result of the test and a conclusion (opinion) on its effectiveness.
Schedules supporting a figure in the balance sheet or profit and loss account should

- consist of a summarised schedule (a lead schedule) showing the make-up of the figures in the balance sheet, an
be supported by backing schedules showing the make-up of those figures on the lead schedule;
- have extensive cross-referencing between the backing schedules, lead schedules and the accounts themselves to
facilitate explanation of any figure in the accounts or working paper,
- give comparative figures for the previous year so that the auditor can explain and satisfy himself on movement
differences between the years
- Be adjusted if any final adjustments are made to the accounts
- Show the tests carried out to verify the figures on the schedules.

Note:
If the client on his own does not, but could, prepare schedules, he should be encouraged to do so and the
auditor will only have to satisfy himself as to their reliability. This saves on audit time and costs.

Where matters are raised during audit, the replies thereof must be recorded and the fact that the query has been cleared for audit purposes indicated.

**TYPICAL CURRENT AUDIT FILE'S CONTENTS**

| Section | Title | Information contained |
|---|---|---|
| 1 | Index | |
| 2 | Accounts | I) Copy of draft accounts<br>ii) Copy of final signed accounts |
| 3 | Reports and final papers | I) Copies of all draft and final reports issued to client<br>ii) Comments received from client and letter of representation<br>iii) Points on accounts and paints carried forward to next year<br>iv) Management letters<br>v) Final journal entries<br>vi) Company accounts chechlist - Directors' report<br>vii) Reporting partner's review<br>viii) Audit completion report |
| 4 | Job administration and planning | I) Planning programme<br>ii) Budget and fee estimate<br>iii) Time and cost summary<br>iv) Briefing notes<br>v) copy of planning letter to client<br>vi) Points forward from previous years |
| 5 | Balance sheet profit | I) Lead schedules |

and loss account and cash flow statement

ii) Audit programmes
iii) Detailed working papers and conclusions
iv) Company accounts and accounting standard checklists
v) Queries raised and explanations received
vi) Third party confirmations and certificates

6 Systems testing

I) Audit programmes (tests of control and substantive)
ii) Detailed working papers and conclusions
iii) Queries raised and explanations received
iv) Weaknesses identified and copy of letters of weakness to client

7 Accounts preparation

I) Schedules
ii) Trial balance
iii) Cross-reference to audit work performed

8 Extracts from minutes

I) Directors' meetings
ii) Members' meetings

9 Statistical information

Performance indicates collected which have a bearing on the extent, nature, timing of substantive tests (permanent audit files should be updated accordingly).

**PERMANENT FILE:**

Contains that information which is more static and/or is of recurring value to the audit. It will be updated with new information of continuing importance.

**Typical permanent audit file contents**

| Section | File | Information contained |
|---|---|---|
| 1. | Index | - |
| 2 | Constitution | I) Copies of MOA and AOA detailing the legal form, business objects, borrowing powers<br>ii) Partnership agreement or<br>iii) Trust deed |
| 3 | Background and organisation | I) Nature and history of business<br>ii) Ownership<br>iii) Registered office<br>iv) Management structure - including organisation chart, client's |

| | | | |
|---|---|---|---|
| | v) Industry affecting the | size, economic factors | |
| | | industry, seasonal | |
| fluctuations and | | | |
| | | demands. | |
| | v) Premises and plant | - Locations, extent of | |
| facilities, owned | | | |
| | | or leased, age, capital | |
| expenditure | | | |
| | | budgets. | |
| | vi) Products | - Volumes, main suppliers | |
| | vii) Sales methods of | - volumes, main customers, | |
| | | distribution, pricing policies, | |
| | | exports | |
| | viii) Personnel departments, or | - numbers, analyses, by | |
| | | function, method of | |
| remuneration, | | | |
| | | contracts, union agreements, | |
| | | person | |
| | | schemes. | |
| 4 Systems (For large audits | I) Detailed method of | - Manual, EDP | |
| this section could be held | accounting | - Costing systems | |
| on a separate file) | ii) List of accounting records and where kept | | |
| | iii) Flow charts and specimen of accounting documents and accounting codes | | |
| | iv) Accounting manuals | | |
| | v) Statistical information | - Composition of reserves how they | |
| | | arose and movements | |
| | | - A 5 year comparison of performance indicators (major accounting ratios) | |
| | | - Industry statistics | |
| 6 Contracts agreements minutes | I) Leases | - Extracts | |
| | ii) Title deeds inspected | | |

| | | |
|---|---|---|
| | annually by auditor | - Details |
| | iii) Royalty agreements | - Extracts |
| | iv) Minutes of continuing importance | - Directors' meetings<br>- Members' meetings |
| | v) Prospectuses | - Copies |
| | vi) Stock exchange undertakings | - Copy |
| 7 Group | I) Group structure<br>ii) Primary/secondary auditors | |
| 8 Taxation | I) Special concessions with inland revenue<br>ii) VAT information<br>iii) Group elections | |
| 9 Other professional advisors | I) Bankers<br>ii) Solistors<br>iii) Stock brokers<br>iv) Registrars | |
| 10 Job administration | I) Letter of engagement<br>ii) Letter of authority<br>iii) Job administration - Time budgets and costing | |
| 11 Control | I) Control schedule of rotation tests<br>ii) Control view branch and site visits<br>iii) Deed examination<br>iv) Review of other auditors on group audits<br>v) Copies of management letters | |
| 12 Miscellaneous | Details of other client information of a permanent nature. | |

**STANDARDISED WORKING PAPERS**

These offer the following advantages:-

a) They improve the efficiency of the preparation and review of working papers
b) They facilitate the delegation of work
c) They provide a means of control of the quality of work
d) They are useful for routine documentation such as checklists for financial reporting standards, statements of standard accounting practice and specimen letters. However, it is never appropriate to follow mechanically a standard approach to the conduct and documentation of the audit without regard to the needs to exercise professional judgement.

**Confidentiality, safe custody and ownership of working papers**

SAS 230.4 states that "Auditors should adopt appropriate procedures for maintaining the confidentiality and safety of their working papers.'

There are no specific statutory requirements regard the period of retention of audit working papers. Auditors exercise judgement to determine the appropriate period of retention bearing in mind possible needs of their client, for example prospectus at some future date, and their own needs, including any regulatory requirements.

Prior to their destruction, auditors consider whether there is likely to be a need to refer to them again.
Working papers are the property of the auditors. They are not a substitute for, nor part of, the entity's accounting records.

Auditors comply with ethical guidance as to the confidentiality of working papers. Portions of, or extracts from, the working papers may be made available to the entity at the discretion of the auditors, provided such disclosure does not undermine the independence or the validity of the audit process. Information is generally not made available to other third parties (including parent comaries or subsidiary undertakings or their auditors without the permission of the entity.

**QUALITY CONTROL AND REVIEW PROCEDURES:**
SAS 240.1 requires that quality control policies and procedures should be implemented both at the level of the audit firm and on individual audits.

The audit firms should establish and monitor quality control policies and procedures designed to ensure that all audits are conducted in accordance with the auditing standards and should communicate those policies and procedures to their personnel in a manner designed to provide reasonable assurance that the policies and procedures are understood and implemented (SAS 240.2)

The nature, timing and extent of auditors' quality control policies and procedures depend on a number of factors such as the size of the practice, geographic dispersion, organisation and appropriate cost/benefit consideration.

The quality control policies to be adopted by auditors usually incorporate the following ;-

a) Professional requirements - i.e ethical requirements

Personnel adhere to the principles of independence, integrity, objectivity, confidentiality and professional behaviour.

b) Skills and competence

Personnel have attained and maintain the technical standards and professional competence required to enable them to fulfil their responsibilities with due care. In use should be manuals, standardised documentation and programmes and regular update of procedures.
Including effective recruitment of personnel with suitable qualifications and any necessary expertise in specialised areas.
Other facilities include technical libraries, appropriate training arrangements, attendance at professional courses, professional publications and relevant legislations.

c) **Acceptance and retention of clients**

Prospective clients are evaluated and existing clients are reviewed on an ongoing basis. In making a decision to
accept or retain a client, the auditors' independence and ability to serve the client properly and the client's
management are considered.

d) **Assignment**

Audit work is assigned to personnel who have the degree of technical training and proficiency required in the
circumstances.

e) **Delegation**

Sufficient direction, supervision of work and review at all levels is carried out in order to provide confidence that
the work performed meets appropriate standards of quality.

f) **Consultation**

Whenever necessary within or outside the audit firm occurs with those who have appropriate expertise and

g) **Monitoring**

The continued adequacy and operational effectiveness of quality control policies and procedures are monitored.
This may include periodic review of a sample of the firm's audit files by independent reviewers; the firm having set
levels of competence of or partners and staff who participate in the review, establish procedures to resolve
disagreements which may arise between the reviewers and audit staff and have procedures for selection of particular
audits for review.

Review of audit work takes a number of different forms.

i) **Hot review:** Working papers produced by a member of the audit staff are checked by a more experienced member of the staff who initials the papers.

ii) **Post-audit review (cold review)**

At the end of the audit before the audit report is signed, the manager or partner reviews that audit file an final
accounts

iii) **Audit review department**

This team review in detail the work performed by an audit group and ensures that the audit has been conducted in
accordance with the firm's standard procedures.

iv) **Real review**

One firm of auditors reviews the working practices of another firm and reports to the partners of the investigated
firm on the ways in which their procedures might be improved.

**INDIVIDUAL AUDITS**

For each audit, the audit engagement partner (person who assumes ultimate responsibility for the conduct of the audit and for issuing an opinion on the financial statements) should apply quality control procedures appropriate to the particular audit which ensures compliance with auditing standards (SAS 240.3).

Any work delegated to assistants should be directed, supervised and reviewed in a manner which provides reasonable assurance that such work is performed competently. The audit engagement partner and personnel with supervisory responsibilities consider the professional competence of assistants performing work delegated to them when deciding the extent of direction, supervision and review appropriate for each assistant.

**Appropriate direction to assistants** involves informing them of their responsibilities and the objectives of the procedures they are to perform. This also involves informing them of matters such as the nature of the entity's business and possible accounting or audit problems which may affect the nature, timing and extent of audit procedures. Audit directions may be communicated by manuals or checklists as well as audit programmes and the overall audit plan.

**Supervision**

Personnel with supervisory responsibilities perform the following functions during the audit;-

- Monitor the progress of the audit to consider whether assistants have the necessary skills and competence to carry on their assigned tasks, understand the audit directions and the work is being carried out in accordance with the overall audit plan and the audit programme.
- Become informed of and address significant accounting and auditing questions raised during the audit, by assessing their significance and modifying the overall audit plan and programme as appropriate and
- Resolve any differences of professional judgement between personnel and consider the level of consultation that is appropriate.

**Review**

Work performed by each assistant is reviewed by personnel of appropriate experience to consider whether;

- the work was performed in accordance with the audit programme
- the work performed and the results obtained have been adequately documentated
- any significant audit matters have been resolved or are reflected in audit conclusions
- the objective of the audit procedure have been achieved
- the conclusions expressed are consistent with the results of the work performed and support the audit opinion.

The following are reviewed on a timely basis;

The overall audit plan and the audit programme, the assessment of inherent and control risks, the documentation obtained from substantive procedures and

conclusions drawn there from including the results of consultations and the financial statements, proposed audit adjustment and proposed auditor's report.

## SMALL COMPANY AUDITS

Characteristics

a) These employ very few staff and hence there is very little scope for division of responsibilities
b) The accounting systems are often relatively unsophisticated and possibly dominated by one person.
c) The owners of the business are frequently heavily involved in the day-to-day running of the business.

### Internal controls

The restricted scope of division of responsibilities and the domination of the accounting function by one person constrain the effective internal control. However, the extent of management supervision in day-to-day operations is critical.

While the day-to-day supervision is an important check by management employees, there is little check on management itself.

In small but rapidly expanding business, much of the proprietor's time is taken up with steering the business along an expansion path that the extent and effectiveness of day-to-day supervision is very much reduced.

### Auditing considerations for small companies:-

1. **The engagement letter**

The remove misunderstandings the client may have as to auditors' responsibilities and to make clear the distinction
between audit and accountancy.

2. **Substantive procedures**

Since controls are weak, tests on debtors and stock verification will be very much intensified though no amount of
substantive procedures will offer the auditor the necessary assurance where controls are very poor e.g where there
are large amounts of cash receipts not accorded accurately. Most of the time audit reports for small companies are
qualified for this reason.

3. **Management representations**

These are to be relied on to a far greater extent. These representations should be backed up by supporting evidence.

4. **Overall review**

Accounting records may be fairly simple and management information such as monthly accounts budgets non
existent and hence limit the extent of analytical procedures.

### Audit techniques and small companies

Planning and recording are simple with a small client, but needed. The need to record the work done and evidence obtained is equally great.

Accounting system:- Not well developed
Internal control: Not to be relied on
Audit evidence: Harder to obtain
Review of financial statements: should be reviewed as much as large company.

**Audit independence and small companies**
The auditor tends to perform more than just the audit. He is looked upon for advise and guidance and may be involved in preparation of accounts for taxation matters. Audit fee is likely to be larger.

**Arguments against audit of small companies**
1. Audited accounts serve only a compliance function and add little to management's knowledge and understanding of the business.
2. The resources expended by the company on the audit could be used to obtain more useful financial advice.
3. Banks and other financiers are generally in a position to make specific conditions for providing finance, and therefore have little need for a statutory audit.
4. Abbreviated accounts filed ten months after the year end are of little value to trade suppliers and customers in establishing a trading relationship.

**Arguments for small company audits:**
1. Most auditors consider that it is perfectly possible to audit a small company and produce a satisfactory audit report.
2. If banks and other creditors required their own independent audit, the result might be to increase, not reduce, the costs of a small company.
3. The audit is necessary to protect creditors which is important in view of limited liabilities of the shareholders
4. Shareholders, particularly minority shareholders are entitled to full and reliable information about the position of their company.

**References**

 ^ International Standard on Auditing 315 Understanding the Entity and its Environment and Assessing the Risks of Misstatement
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 ^ "Concept release on possible revisions to pcaob standards related to reports on audited financial statements". retrieved 22 july 2011.
 ^ Cutting, Thomas (January 12, 2008). "How to Survive an Audit". PM Hut. Retrieved December 13, 2009.
 ^ Gilbert W. Joseph and Terry J. Engle (December 2005). "The Use of Control Self-Assessment by Independent Auditors". The CPA Journal. Retrieved 2012-03-10.

| Course Name | : Research Methods & Data Management |
|---|---|

**Course Description**
This Course explores basic philosophy of research, its types and variables, its defines sampling design, research design, methods/tools of data collection, planning the survey as a tool of data collection, the structure of a research proposal , modes of analysis, interpretation and validation.

**Course Objectives**

- To provide students with descriptive and exploratory skills required in research.
- To help them develop writing skills in relation to research discoveries from different research studies undertaken.
- To provide students with a better analytical perspective on the findings acquired from the field.
- To expose students to the field experiences in attempts to collecting data.

**Course content**
**Introduction**

- Definition of research
- Different forms of research
- Distinguish between qualitative and quantitative variables
- Differences between qualitative and quantitative research
- Concepts that relate broadly to both quantitative and qualitative research

**Sample Design**

- Definition of sampling
- Different types of both random and non-random sampling

**Research Design**

- Meaning of a research design
- Types of research design i.e descriptive designs, co relational designs, case study designs
- How to design and conduct a case study

**Methods of data collection**

- Observation method
- Survey
- Group interviews (Focus Group Discussions)
- Questionnaires
- Advantages and disadvantages of each stated method/tool

**Planning the survey as a data collection tool**

- Hypotheses
- Determine the respondents
- Questionnaire, interview or telephone survey
- Format issues
- Rules for asking good questions
- Analyzing survey data

**The structure of a research proposal**

- Title

- Table of contents
- An abstract
- Chapter one: Background to the problem
- Chapter two: Literature review
- Chapter three: Methodology
- Chapter four: Results/findings of the study
- Chapter five: Discussion, conclusion and recommendations
- References
- Appendices

**Assessment**
**Coursework** 40%
**Exams** 60%
**Total Mark** 100%

## Introduction

This module generally focuses on the various health research methods used in public health, with these methods various techniques are applied to identify issues. By the end of this module one should be in position to identify the various research methods and explain them efficiently as well as knowing their relevancies

## Course work

a) Through proper explanations and illustrations briefly explain ten medical research methods used in public health.

b) What is the importance's of research to the profession of Public health and the health fraternity as a whole

## What Are Health Services Research Methods? Why Are They Important?

In the 1960's, the field of health services research was created by combining several study sections at the National Institutes of Health to create the Health Services Research Study Section. The HSR study section sought to define HSR as a distinct field of scientific inquiry at the intersection of public health and medical care, informed by disciplinary perspectives. Since that time, the field has evolved to encompass multiple disciplinary perspectives, including methods from cognate disciplines such as economics, statistics, political science, sociology, and many other schools of thought. The field has also developed new models and techniques to address research questions in specialized areas of inquiry such as patient safety and access to care.

Due to the breadth of the field, two terms are critical to defining the scope of health services research methods. These are: 1) health services research, and 2) methodology.

The Academy Health definition of health services research, developed in 2000 by Kathleen Lohr and Don Steinwachs, is as follows:

Health services research is the multidisciplinary field of scientific investigation that studies how social factors, financing systems, organizational structures and processes, health technologies, and personal behaviours affect access to health care, the quality and cost of health care, and ultimately our health and well-being. Its research domains are individuals, families, organizations, institutions, communities, and populations.

An additional definition of health services research is provided by *Lexikon*:

Research concerned with the organization, financing, administration, effects, and other aspects of health services. Health services research is often concerned with the relationships among need, demand, supply, use, and outcomes of health services. Structure, process, and outcome of health services may be evaluated. Evaluation of structure is concerned with resources, facilities, and manpower; process, with matters, such as where, by whom, and how health care is provided; and outcome, with the results of the services (such as the degree to which individuals receiving health services actually experience measurable benefits).

Methodology is the collection or study of methods (practices, procedures, and rules) used by those who work in a discipline or engage in an inquiry, as in the methodology of measuring, assessing, and improving performance. Methodology addresses the full range of issues confronted by empirical work in health services research, including conceptualization, modelling, literature review, study design, sampling, data collection, measurement, and research ethics.

By combining the definitions above, it is apparent how wide the scope of methods employed by health services researchers is. HSR methods encompass a variety of study frameworks, designs, and analytic techniques. These include a spectrum of methods, from understanding of various epistemological perspectives on research, to study designs including focus groups and randomised controlled trials, to specific analytic techniques such as longitudinal data analysis.

To help organise the array of HSR methods, core and desired resources have been divided into 18 major topic areas, including:

*Economics & Cost Effectiveness*
*Epidemiology*
*Ethics*
*Evaluation*
*Health Services Research Applied Methods*
*Information Technology*
*Management Sciences*
*Medicine*
*Outcomes Research*
*Policy*
*Psychology*
*Public Health*

*Qualitative Research*
*Quality and Safety*
*Sociology*
*Statistics, Biostatistics & Econometrics*
*Survey Research*
*Trials*

Reviewing the topic areas above, it is apparent that HSR methods are not confined to disciplinary methods, but rather, are unique in their approach to medical and health care delivery questions because the field was developed to facilitate study of applied questions. These include:

- Who has access to health care?
- Do patients in large urban areas receive the same level of services as those in rural areas?
- At different levels of care, which patients have the best outcomes?

Many of these types of questions have policy implications. As a result, funding for health services research has often been linked to political interests. Yet, HSR studies are girded by the same methods as many other disciplines. As discussed above, econometric, epidemiological, survey research, and other widely accepted methods form the backbone of HSR.

A related challenge for health services researchers is that the types of questions of interest to the field rely on the ability to generalise from data to the population at large. In order to collect information that may be generalised to the population, it is often necessary to draw associations from existing sources of data such as claims databases or large population surveys - frequently referred to as observational data. Observational data is collected in situations when it would be unethical or impractical to randomize participants to one condition or another - such as having or not having health insurance. Because the data is not randomised, it is not possible to assume that an intervention causes a particular outcome; rather, researchers rely on statistical analyses to draw associations between factors in a study.

Despite concerns about the shortcomings of using non-randomised data in HSR studies, there are major benefits to studying the implications of care delivery or policy at the population level. The scope of HSR studies often allows for greater understanding of an intervention's effectiveness, or effect in a real-world population, as opposed to randomized controlled trials, which are better at assessing efficacy -- the outcome in an ideal, controlled population. In addition, HSR studies have always been closely linked to policy considerations, and as such, have the potential to enhance understanding of health care systems and impact care delivery for large numbers of individuals.

For librarians it is becoming increasingly important to create a collection of materials that address the types of applied questions that health services research addresses. This is a daunting task because of the breadth and depth of the disciplines and subjects encompassed by HSR. As the list of disciplines and topic areas relevant to

HSR demonstrates, a wide array of disciplines are included in the health services research methodological 'toolkit'.

Librarians may wish to utilise the module by choosing specific content areas that will benefit their personal library needs. Likewise, faculty developing new courses may look to this list for suggested current textbooks in the field. The organisation of the list is intended to facilitate understanding of the array of options in different disciplines.

This list of resources is not intended to define the full range of HSR methods texts, rather, to provide a set of resources considered valuable by librarians and academics in the field of health services research.

The field of health services research is continually expanding and developing new methods to apply to health care and health care delivery questions. Due to the fact that the field is growing rapidly, we recommend that users of this list search for updated versions of the resources cited here in order to ensure the most recent information on methodological topics.

They are basically two main types of research methods which is quantitative and qualitative, which all the methods lie under

**Research** and experimental development (R&D) comprise creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this stock of knowledge to devise new applications." Thus research is a careful and systematic investigation in some field of knowledge such as culture of people, religion, etc (Neon 1995)

**Variable:** Variables are properties or characteristics of some event, object, or person that can take on different values or amounts (as opposed to constants which do not vary). When conducting research, experimenters often manipulate variables. For example, an experimenter might compare the effectiveness of four types of antidepressants. In this case, the variable is the "type of antidepressant" I.e. attributes which take on different values from time to time e.g.

- Height
- Weight
- Age etc

**The following are the types of variables**

1: Independent variable

When a variable is manipulated by an experimenter

2: Dependent variable

The experiment seeks to determine the effect of the independent variable on relief from depression. In this example, relief from depression is called a dependent variable.

In general the independent variable is manipulated by the experimenter and its effects on the dependent variable are measured.
Or
Dependent variable: a variable in a logical or mathematical expression whose value depends on the independent variable; "if f(x) =y, y is the dependent variable"
Consider age with beauty of an individual: beauty deterioration of an individual is caused by advancement in age .Age is an independent variable and beauty is the dependent variable.

3:Extraneous variable; this is the characteristics whose effects are not needed in the study like noise, for the case if one is studying the causes of lack of concentration in a given computer class or any other class.

4: Active variables characteristics that can be manipulated e.g. study environment or teaching methods etc

5; Assigned variables, certain characteristics assigned by nature and can not be changed or manipulated like height, sex of individual, age etc

Qualitative **and Quantitative Variables**
**Qualitative variables:** These are variables that express a qualitative attribute. Some examples of qualitative variables are hair color, eye color, religion, favorite movie, gender, and so on. The values of a qualitative variable do not imply a numerical ordering. Values of the variable "religion" differ qualitatively; no ordering of religions is implied. Qualitative variables are sometimes referred to as categorical variables. Values on qualitative variables do not imply order, they are simply categories

**Quantitative variables:** These are variables that are measured in terms of numbers, Some examples of quantitative variables are height, weight, and shoe size.

***Discrete and Continuous Variables:*** *Variables such as number of children in a household are called discrete variable.*

**Discrete variables:** These are variable with possible scores of discrete points on the scale e.g a household could have three children or six children, but not 4.53 children. Other variables such as "time to respond to a question" are continuous variable

**Continuous variable:** These are variables where the scale is continuous and not made up of discrete steps e.g. The response time could be 1.64 seconds, or it could be 1.64237123922121 seconds. Of course, the practicalities of measurement preclude most measured variables from being truly continuous.

**Random selection:** is how you draw the sample of people for your study from a population.

**Random assignment** is how you assign the sample that you draw to different groups or treatments in your study. It is possible to have both random selection and assignment in a study. Let's say you drew a random sample of 100 clients from a population list of 1000 current clients of your organization. That is random

sampling. Now, let's say you randomly assign 50 of these clients to get some new additional treatment and the other 50 to be controls. That's random assignment
.
Concepts that relate broadly to both quantitative and qualitative research

**Association:**

Sometimes there is a relationship between two variables but the relationship may not be causal i.e., neither variable is dependent upon the other. It may be seen that short men are more assertive than taller men but it does not follow that being short causes men to be assertive and we can not state that being assertive make a man short; there is no causal relationship

**Bias**:

Distortion of the findings resulting from an undesirable influence.

**Causality / Causal relationship:**

A relationship in which one action brings about (causes) a particular consequence. More correctly, (since research can only hope to disprove a theory rather than prove it), a relationship in which failure to do 'x' means that 'y' will not follow. E.G., We can be less certain that bathing in the sun for two hours around midday causes skin to burn, than we can know that keeping out of the sun for the two hours around midday is unlikely to cause skin to burn.

Hawthorn Effect:

A psychological response in which subjects alter their behaviour because they are aware of their participation in the study

**Piloting:**

A small-scale trial of the research method to ensure that the design is feasible, Although only a small number of subjects may be used, a variety of practical questions may be determined. E.g., can the subjects understand the questions they are being asked?

Population:

Literally means "all the people" and in research the term is most commonly used to refer to a specific group of people. However, in a research context, population refers to all the members or objects of any defined group which might be taken or about which information might be given. A research population refers to the entire group to which the research results apply e.g., a relevant age group, or equipment group such as syringes.

Sample:

Refers to the segment of the population that is selected for investigation (the subset of the population)

**Sampling frame:** it is the listing of all the units in the population from which the sample will be selected

**Census:** this is a complete enumeration of an entire population

Reliability:
Is concerned with the accuracy (consistency, stability and repeatability) of a measure in representing the true score of the subject being assessed on a particular dimension, the same results must be achieved, as far as possible, regardless of whom is doing the measuring. e.g., several nurses weighing the same patient on the same set of scales, in quick succession, should gain the same results. Reliability of measurement reduces influence or bias on the part of the person(s) doing the measurement, to a minimum.

Representative:
Refers to the extent to which a sample reflects the "truth" for the whole population in the study. The sampling technique should aim to ensure that the views of the population are reflected by the sample.

Validity:
Refers to whether a particular instrument actually measures the construct it is designed to assess. e.g., a cardiac monitor is not a valid tool for measuring the peripheral pulse. A cardiac monitor is a valid tool for measuring the electrical activity of the heart.

Internal validity:
The extent to which the effects detected in a study are a true reflection of what is real, e.g., if the detected effect is that better nutrition leads to greater height gain in infants, internal validity exists if the height gain can not be attributed to another factor. (NB this other factor may be referred to as a confounding or extraneous variable).

External validity:
"The extent to which study findings can be generalised beyond the sample used in the study" (Burns and Grove 1993) e.g., One study may find that better nutrition leads to increased height gain in infants but external validity exists only if this finding is found with other samples.
NB the concept "Variable" appeared on the glossary of the previous session

**SAMPLE DESIGN**

The way of selecting a sample from a population is known as sample design. It describes various sampling techniques and sample size. It refers to the technique or procedure the researcher would adopt in selecting items for the sample.

**Sampling:**
Sample; Sampling; method of selecting a certain number of units from a total population
(Macleod Clark J and Hockey L. 1981)
The way a sample is selected should be clearly demonstrated in a research report. The aim of a sample is that it should be as unbiased a cross section of the "parent" population as possible, i.e., a sample of subjects needs to be as representative as possible of the population under study.

To obtain a cross section we need to devise a sampling frame to define the boundaries (limits) within the context of the study and to reflect the organization within which the sampling is taking place.

The larger the size of the sample, the lower is the likelihood of it failing to represent the population under study. However, the law of diminishing returns tells us that there is, for each study, a desirable sample size under which their may fail to be accuracy yet above which there is no better a reflection of the parent population.

Sampling may be

a) Random and non random sampling.
b) Non random: In a nonrandom sample, members are selected on the basis of a particular set of characteristics, rather than a random chance of being included and certainly it introduces bias.

Random- Random sampling is completely based on chance. For example, one might identify all members of a population, (n=250) write their names on separate pieces of paper, and then draw 25 names out of a hat to determine who is actually to be included in the study and every individual has a chance of being included in the study.

Types of random sampling

Systematic

Is a statistical method involving the selection of every $k^{th}$ element from a sampling frame, where *k*, the sampling interval, is calculated as:

*k* = population size (*N*) / sample size (*n*)

- Stratified
- cluster sampling

Stratified sample

In a stratified sample the sampling frame is divided into non-overlapping groups or strata, e.g. geographical areas, age-groups, genders. A sample is taken from each stratum, and when this sample is a simple random sample it is referred to as stratified random sampling.

Where there is heterogeneity in the population this can be reflected in the strata, i.e., each stratum can be weighed to reflect the heterogeneity. In this way a proportional representation of the whole population can be gained.

Cluster sample

Best used where there is a wide geographical spread. Clusters may be chosen subjectively to be representative of the whole. The clusters can be further stratified. E.G., if we want to know about all A&E patients in the country we need to take a sample from a variety of A/E's. Each department can bring a number of patients into the sample according to whether they meet the stratification criteria and it is often used in marketing research

Multistage sampling

This is the use of sampling methods that are considerably more complex than these other methods. The most important principle here is that we can combine the simple methods described above in a variety of useful ways that help us address our sampling needs in the most efficient and effective manner possible. When we combine sampling methods, we call this multi-stage sampling.

Concepts strongly associated with quantitative research

**Survey:**
Involves the study of a large number of subjects drawn from a defined population

Randomisation:
A method for controlling possible extraneous variables involving assigning objects (subjects, treatments etc.,) to a group or condition in such a way that every object has an equal probability of being assigned to any particular condition. Randomisation can also be applied in other settings for research e.g., within a questionnaire there may be a sequence of questions, which, if reordered randomly, may evoke different responses because the previous question does not then influence the current question.

Control:
In order to increase the probability that findings accurately reflect the reality of the situation being studied, the study needs to be designed in such a way as to maximise the amount of control over the research situation and variables. Through control the influence of extraneous variables, variables which are not being studied but which could influence the results of the study by interfering with the action of the ones being studied, is reduced.

Manipulation:
Refers to the fact that we can create artificial divisions and circumstances in order that we can test a particular hypothesis, In experimental research the "causative" variable must be amenable to manipulation by the investigator; i.e., the researcher "does something" to subjects in the experimental condition. Subjects in the control group are not "manipulated" in the way that subjects in the "experimental group" are manipulated.

**Treatment Group**: The portion of a sample or population that is exposed to a manipulation of the independent variable is known as the treatment group. For example, youth who enroll and participate in recreation programs are the treatment group, and the group to which no recreation services are provided constitutes the control group

Confounding Errors
Errors: are conditions that may confuse the effect of the independent variable with that of some other variable(s).

1. Premeasurement and interaction errors
2. Maturation errors
3. History errors
4. Instrumentation errors
5. Selection bias errors
6. Mortality errors

Measurement (levels)
**Nominal**: Subjects of research are differentiated by possessing or not possessing a given characteristic, e.g., pass/fail, single/married, and divided into a number of categories but the difference between the categories is not measurable in any real sense. This is the least sophisticated level of measurement.

**Ordinal:** Subjects are ranked in order from greatest to least or best to worst. Again there is no precisely measurable difference between the ranks.

**Interval:** Genuinely quantitative measurement such as that of temperature is measured at the interval level of measurement. Here the difference between 10 and 11 degrees centigrade is the same as the difference between 11 and 12degrees centigrade.

**Ratio:** In a scale of measurement where the difference between points on the scale is precise (as in the measurement of height and weight,) *and the scale starts at zero* the level of measurement is referred to as ratio. Height and weight start at zero. You can not weigh less than 0.00kg and cannot be less than 0.00mm in length/height; these are ratio scales. You can however record temperatures of the weather in terms of minus *x* degrees centigrade and this is why the scale is interval and not ratio.

Research Design

Research design can be thought of as the *structure* of research -- it is the "glue" that holds all of the elements in a research project together or plan for a study that guides the collection and analysis of the data

We often describe a design using a concise notation that enables us to summarize a complex design structure efficiently. What are the "elements" that a design includes?

Types of design:- Experimental design , Quasi-experimental design, Survey design, cross-sectional design, Case studies, comparative study etc

The research design:

(1) Is driven by there search problem

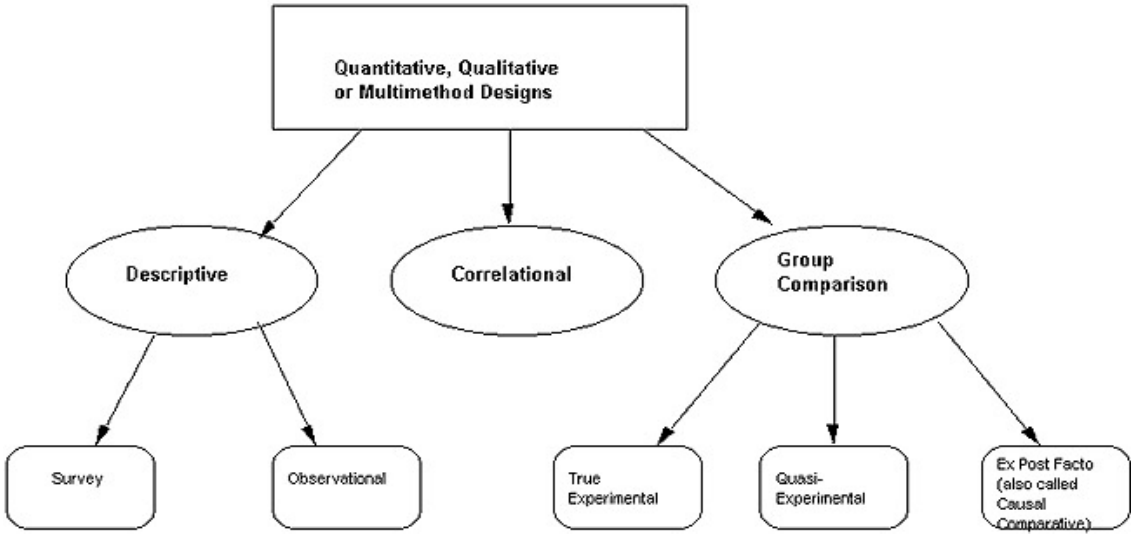
(2) Depends upon how much is known about the problem

Types of Research Design

For example, if you are doing a study where you will be *rating* students (numerically) on their performance of a sensory-motor skill AND also *interviewing* these students (data in words) to determine how they perceive their own skill levels (if one does that !), *then at least one "design methodology label" that would apply is "multimethod*."

Now, some design labels apply only to qualitative studies -- while others could apply to a study that's any of the of designs. We'll look at the qualitative labels in a future follow-up lesson. For now, let's look at the possibility: families of design methodology labels that could apply to any/all of the above 3 possibilities.

**Figure 2.**



Design Methodology
That Correspond To Quant/ Qual/ Multi method Studies

Most of these, as we'll see, "link" to certain "keywords" in the research question or problem statement!

I. **Descriptive Designs**

Example: This study is to *identify* the perceived barriers to successful implementation of the Career Ladder Teacher Incentive & Development Program in X School District.

"Identify"/"what is - what are" (the perceived barriers) - > Descriptive problem statement AND also descriptive research design methodology!

Two "sub-types" (add'l. design methodology labels that could apply to "descriptive designs):"

**Survey** - This label also applies to any study in which data or responses (be they quant/qual/both) are recorded via any form of what we think of as "survey instrumentation."

You've probably seen (more than you care to think about! if you've been 'approached' by a 'needy dissertation stage doctoral student' to participate in his/her study!) such surveys. They can take many forms:

A. Check-off items (e.g., gender, position);
B. Fill-in-the-blank items;
C. Likert-type scales (e.g., on a 5-point scale, say, from "strongly disagree" to "strongly agree," you're asked to circle or check your opinion regarding a statement such as, "The Career Ladder Teacher Incentive and Development Program provides ample opportunity for teacher advancement in my district")
D. Open-ended fill-in items (you're asked to give a response in your own words, using the back of the survey sheet or extra paper if necessary; something like "Please state the three main reasons you chose to apply for the Career Ladder Teacher Incentive and Development Program this year.")

**Types of Survey Research**

While often these surveys are paper-&-pencil in nature (e.g., you're handed one or receive it in the mail & asked to fill it out and return it to the researcher), they are sometimes "administered" orally in a face-to-face or telephone interview (e.g., the researcher records your answers him/herself).

**Some Guidelines for Interviews**

There are other variations on survey-type questions; the above are just examples of the most common forms and scaling of such responses.

If the responses to our earlier example were collected in the form of a survey -- be it, say, Likert-scaled attitudinal items and/or open-ended questions where the teachers are asked to share the perceived barriers in their own words -- then the study would be characterized as a *descriptive survey design methodology*.

E. **Observational** - In these design methodologies, instead of administering a survey instrument, the researcher collects data by observing/tallying/recording the occurrence or incidence of some outcome -- perhaps with the aid of assistants.

He/she might want to identify the most frequently occurring type(s) of disruptive behavior in a particular classroom. With clear prior agreement on what constitutes such "disruptive behavior" (operational definitions of our variables are important, remember?! It becomes an issue of "reliability," or verifiability that "we saw what we saw" vs. "our own bias" of what constitutes this disruptive behavior!), the researcher

could develop a listing of such behaviors and observe and record the number of times each one occured in a particular observation session in a classroom. (Again, he/she might wish to 'compare notes' with assistants in order to enhance reliability or verifiability -- e.g., as a cross-check for accuracy).

This type of research would warrant the design methodology label of not only "descriptive" (due to the 'identify/what is - what are [the most frequently occurring ... ]?') but also "observational" due to the recording/tallying protocol.

(By the way, qualitative-type observations can also be recorded. They don't have to be strictly numeric tallies. Examples that come to mind include case notes of counselors, where they record their perceptions in words.)

**II. Correlational Designs**

We've seen these too! Just as in the case of "descriptive" designs, these "link" to the keywords of "association," "relationship," and/or "predictive ability" that we've come to associate with "correlational" research questions or problem statements!

**Correlational Research**

**III. Group Comparisons**

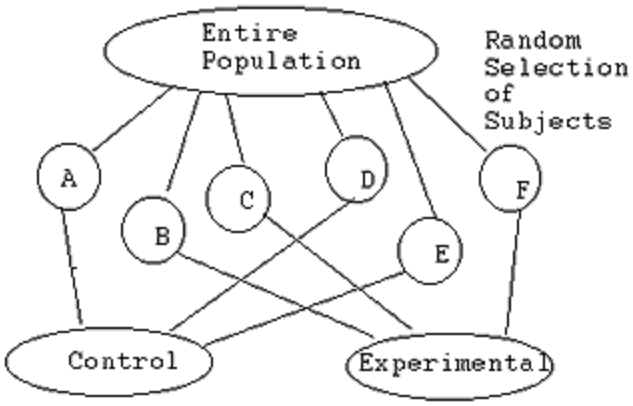
We've briefly talked about "experiments" generally, in terms of "key features" such as the following:

a. **tight control** (the researcher attempts to identify in advance as many possible 'contaminating' and/or confounding variables as possible and to control for them in his/her design -- by, say, building them in and balancing on them -- equal numbers of boys and girls to 'control for gender' -- or 'randomizing them away' by drawing a random sample of subjects and thereby 'getting a good mix' on them -- e.g., all levels of 'socioeconomic status')
b. because of the preceding control, the 'confidence' to **make 'cause/effect statements'**

That is, we begin to get the idea of 2 or more groups, as balanced and equivalent as possible on all but one "thing:" our "treatment" (e.g., type of lesson, type of counseling). We measure them before and after this treatment and if we do find a difference in the group that 'got the treatment,' we hope to attribute that difference to the treatment only (because of this tight control, randomization, and so forth).

Now ... there are actually two "sub-types" of experimental designs. Plainly put, they have to do with how much 'control' or 'power' you as the researcher have to do the above randomization and grouping!

A. **True experimental** - If you can BOTH randomly draw (select) individuals for your study AND then randomly assign these individuals to 2 or more groups (e.g., 'you have the power to make the groups' yourself!), then you have what is known as a true experiment.'



Random Assignment of Subjects to Experimenter-Formed Groups

In the preceding scenario, the researcher first:

1. Randomly selected subjects A through F from the larger population; AND
2. Then randomly assigned these individuals to (experimenter-formed) groups. In our example, by coin-flipping or some other random procedure, Subjects A, D & E "landed" in the control group (e.g., the class that will get the traditional lecture), while Subjects B, C, & F "landed" in the experimental or treatment group (e.g., the researcher-formed class that will get the hands-on science instruction, say).

The two levels of "randomization" help to ensure good control of those pesky contaminating or confounding variables, don't they?! You're more likely to get a "good mix" on all those other factors when you can randomly draw your subjects and also randomly assign them to groups that you as the researcher have the "power" to form!

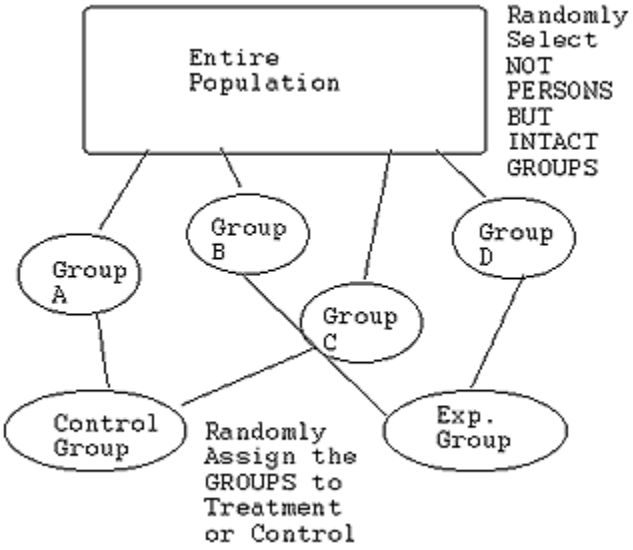
Ah...but ivory-tower research is one thing; real life quite another !

What if you get the OK to do your research within a school district, but the sup't. says, "Oh no! I can't let you be disrupting our bureaucratic organization here and "making your own 4th grade classrooms" for your study! That's way too disruptive! No, no, the best you can do is to randomly select INTACT existing 4th grade classrooms and then go ahead and use all the kids in those randomly drawn GROUPS instead!"

**The True Experiment and Quasi-Experiment**

Which brings us to the 2nd variant of "experimental designs:"

B. **Quasi-experimental - what you are 'randomly drawing' (selecting) is NOT INDIVIDUALS but INTACT (pre-existing) GROUPS**! These could be existing classrooms, clinics, vocational education centers, etc. In other words, you "lose" the power to "make your own groups" for your study!




Here (for the quasi-experiment), you randomly draw intact groups (e.g., from all the 4th grades in the district, you draw 4 of them at random) and then flip a coin or use some other random procedure to assign the pre-existing 4th grades to either the "treatment" or "control" conditions. (In our example Grades A and C "land" in the traditional lecture method (control), while Grades B and D end up in the hands-on science instruction (e.g., the "treatment" or the "experimental" group).

Do you see how this is different from the "true" experiment? In the "true" experiment, you selected the children themselves (subjects) at random and then "had the power" to in essence "form" your own "4th grades" by assigning the individual kids themselves randomly to either the control or the experimental conditions.

Here, though, the 'best you can do' (again, often for practical reasons such as access to sites, permission, etc.) is draw not individual kids but the GROUPS themselves (pre-existing 4th grade classrooms) at random and then in step # 2 assigning NOT the INDIVIDUAL KIDS but rather the WHOLE GROUPS to either the treatment or control conditions.

**Quasi-Experimental Design**

See how ***this one-step loss of randomization may mean a bit less control over those pesky contaminants***?! By forming your own groups you have a greater likelihood of "getting a good mix on all other stuff". But here, you've got to "live with the existing groups as is." And suppose that in the above scenario, 4th Grades B & D also happen (quite by accident, but welcome to 'real life!') to have a higher average I.Q. of 15 points than A & B! Now we've got a contaminant! Did the kids do better because of the hands-on science lesson -- or because of their inherently higher aptitude, intelligence or whatever?!

But at least we still have that last step: random assignment to either the experimental or control conditions!

Remember ... again...

1. For true experiments, we're randomly assigning individuals to treatment vs. control; and
2. For quasi-experiments, we're randomly assigning intact/pre-existing groups to treatment vs. control.

Well -- we lose that "random assignment" property in the 3rd "family" of group comparison design methodologies!

**Ex post facto (also called "causal comparative")** - really no 'random anything!' We identify some sort of outcome and wonder 'what makes it vary like that?' Could it be

some pre-existing grouping? For instance, if we 'divided' or 'pile-sorted' the responses by gender, would that account for the difference we see?
Thus, there is no treatment either! Simply an attempt to see if a grouping that we had no prior control over seems to "make a difference" on some outcome(s)!
The keyword "difference" (by grouping) and no treatment would be the tip-off to an ex post facto or causal-comparative study design.
And -- regarding the grouping -- maybe this rather silly example will make the point! And help you to identify if you are in such a situation of "no-control-over-grouping:"
You wish to study whether preschoolers from single-parent homes are different in terms of emotional readiness for kindergarten than those of two-parent homes.
Now ... you couldn't go to prospective subjects' homes and say, "OK, now you've got to get divorced ... and YOU have to stay married ... 'cuz that's how you came up in the random assignment!"
I don't think so...!!! Same thing with "gender:" you took it "as is" (e.g., those subjects in essence 'self-selected into their gender grouping). You had no prior control over 'making' them 'be' one gender or the other but rather took those groups 'as is' and kind of pile-sorted some response(s) by gender to see if it 'made a difference' on some outcome! Indeed ... the ***literal Latin translation of "ex post facto" is "after the fact."*** This shows YOUR role in the 'grouping' process as the researcher! You didn't 'assign' them into any one group, randomly or otherwise. Instead, you came in "after the fact" and wished to see if that self-determined grouping made a difference on some outcome(s) that you are studying!
As you can imagine -- even bigger problems with contaminating variables! There is no randomization or control here!
Thus the name "causal comparative" is sort of a misnomer. You are indeed "comparing" two or more "pre-formed" groups on some outcome(s). But due to that *lack of randomization and control*, you can't really use this design to study "cause/effect" types of research questions or problem statements. There are generally *too many uncontrolled, unrandomized contaminating variables* that may have entered the picture to confidently make 'strong' cause/effect statements!
Nonetheless, given the circumstances, this type of design might be "the best you can do." Group differences on some outcome(s) might indeed be interesting to study even though you had little or no "control" in the situation.

To summarize, for the "group comparison" family of designs:

| **Kind of Study** | **Method of Forming Groups** |
|---|---|
| Ex Post Facto (Causal Comparative) | Groups Formed |
| True Experiment | Random Assignment of Individual to "Researchr-Made" Groups |
| Quazi-Experiment | Random Assignment of Intact Groups |

**Case study design**
It is a useful tool for investigating trends and specific situations in many scientific disciplines, especially social science, psychology, anthropology and ecology

Basically, a case study is an in depth study of a particular situation rather than a sweeping statistical survey. It is a method used to narrow down a very broad field of research into one easily researchable topic
Though it does not answer a question completely, it gives some indications and allows further elaboration and hypothesis creation on a subject.
The case study research design is also useful for testing whether scientific theories and models actually work in the real world. You may come out with a great computer model for describing how the ecosystem of a rock pool works but it is only by trying it out on a real life pool that you can see if it is a realistic simulation.
For psychologists, anthropologists and social scientists they have been regarded as a valid method of research for many years. Scientists are sometimes guilty of becoming bogged down in the general picture and it is sometimes important to understand specific cases and ensure a more holistic approach to research.

Its advantage, (case study research design) is that you can focus on specific and interesting cases. This may be an attempt to test a theory with a typical case or it can be a specific topic that is of interest. Research should be thorough and note taking should be meticulous and systematic. In a case study, you are deliberately trying to isolate a small study group, one individual case or one particular population.

For example, statistical analysis may have shown that birthrates in African countries are increasing. A case study on one or two specific countries becomes a powerful and focused tool for determining the social and economic pressures driving this

**How To Design And Conduct A Case Study**
It is best if you make yourself a short list of 4 or 5 bullet points that you are going to try and address during the study. If you make sure that all research refers back to these then you will not be far wrong.
With a case study, even more than a questionnaire or survey, it is important to be passive in your research. You are much more of an observer than an experimenter and you must remember that, even in a multi-subject case, each case must be treated individually and then cross case conclusions can be drawn

**How To Analyze The Results**
Analyzing results for a case study tends to be more opinion based than statistical methods. The usual idea is to try and collate your data into a manageable from and construct a narrative around it.
Use examples in your narrative whilst keeping things concise and interesting. It is useful to show some numerical data but remember that you are only trying to judge trends and not analyze every last piece of data. Constantly refer back to your bullet points so that you do not lose focus.
It is always a good idea to assume that a person reading your research may not possess a lot of knowledge of the subject so try to write accordingly.
In addition, unlike a scientific study which deals **with facts,** a case study is based on **opinion** and is very much designed to provoke reasoned debate. There really is no right or wrong answer in a case study.

**Cross-sectional design**

A research design where **subjects are assessed at a single time** in their lives, A cross sectional study is fast and can study a large number of patients at little cost or effort. Also, you don't have to worry about patients dropping out during the course of the study. This study is efficient at identifying association, but may have trouble deciding cause and effect. With data at only one time point, you don't know whether the chicken or the egg came first. Here are two examples of cross sectional designs

In Zureik et al (BMJ 2002 Aug 24;325(7361):411), a group of 1132 adults with asthma were given respiratory function tests to assess the severity of their asthma. They were also given skin prick tests to assess their sensitization to mold, pollen, dust mites, and cats. In this study, those patients with reactions to mold were much more likely to have severe asthma.

**Types Of Research**

Research can also be classified on the basis of its purpose its intended to achieve and examples of such researches include:

**Evaluative research:**

This is the study that focuses on whether an intervention was properly implemented and whether the intended outcomes of a given programme or project have been realized or not. (Mouton, 2001) Evaluation studies are both quantitative and qualitative in nature and it requires an understanding of the project objectives so that the performance of the project can be measured against the set objectives.

**Predictive research**

This type of research takes on several variables and tries to predict the likely outcome. It asks 'what if questions. Thus it is based on predictions which themselves grow out of repeated actions and events which have been studied. It is based on probability and can be used to predict the likelihood of an event occurring (Wisker, 2001)

**Historical research**

These are studies which attempt to reconstruct the past and chronology of events (mouton 2001) and aim at arriving at an accurate account of the past so as to gain a better understanding of the present and fore cast what the future is likely to be.

Historical research is also referred to as analytical research. Common methodological characteristics include a research topic that addresses past events, review of primary and secondary data, techniques of criticism for historical searches and evaluation of the information, and synthesis and explanation of findings. Historical studies attempt to provide information and understanding of past historical, legal, and policy

**Meta-Analysis**

Meta-analysis combines the results of studies being reviewed. It utilizes statistical techniques to estimate the strength of a given set of findings across many different studies. This allows the creation of a context from which future research can emerge and determine the reliability of a finding by examining results from many different

studies. Researchers analyze the methods used in previous studies, and collectively quantify the findings of the studies. Meta-analysis findings form a basis for establishing new theories, models and concepts.
Thomas and Nelson (1990) detail the steps to meta-analysis:

1. Identification of the research problem.
2. Conduct of a literature review of identified studies to determine inclusion or exclusion.
3. A careful reading and evaluation to identify and code important study characteristics.
4. Calculation of effect size. Effect size is the mean of the experimental group minus the mean of the control group, divided by the standard deviation of the control group. The notion is to calculate the effect size across a number of studies to determine the relevance of the test, treatment, or method.
5. Reporting of the findings and conclusions.

**Exploratory research:**
These are studies intended to carry out preliminary investigation into relatively unknown areas of research (Terre Blanch and Durrheim). They employ open, flexible and inductive approach to research as they attempt to look for new insights into phenomena. They generate speculative insights, new questions and hypothesis. They ask both 'what and why 'questions (Wiker, 2001, and Mbaaga, 1990) and this type of research is more flexible.

**Descriptive research**
Descriptive reseach are designed to gain more information about a particular characteristic within a particular field of study. A descriptive study may be used to, develop theory, identify problems with current practice, justify current practice, make judgements or identify what others in similar situations may be doing. There is no manipulation of variables and no attempt to establish causality. They are qualitative in nature and produce descriptive data i.e they use people's own written and spoken words as well as observable behaviour to describe a phenomenon or event so that it can be understood better.

- Descriptive research requires the clear specification of...
  ***WHO***, ***WHAT***, ***WHEN***, ***WHERE***, ***WHY***, and ***HOW***

-- Before data collection can begin

- Exploratory research is very flexible; descriptive research is **MUCH** more rigid

Causal research
This is a type of research that tries to find out the cause and effect of phenomenon (Leedy, 1997). The possibility of causal inference derives from the use of randomization techniques, experimental and comparative groups and repeated measures over time. Thus it aims at establishing cause-effect relationships between the research variables.

**Other classification of research**
It may also be categorized into the following

- Quantitative versus qualitative research
- Basic versus applied research
- Empirical and non empirical research

**Qualitative and Quantitative Research**

Quantitative research is:

"a formal, objective, systematic process in which numerical data are utilized to obtain information about the world" (Burns and Grove cited by Cormack 1991 p 140). There is massive use of mathematics, statistical tools and the samples are comparatively large.

In general, qualitative research generates rich, detailed and valid (process) data that contribute to in-depth understanding of the context. Quantitative research generates reliable population based and gereralizable data and is well suited to establishing cause-and-effect relationships

Quantitative research is research involving the use of structured questions where the response options have been predetermined and a large number of respondents is involved.

By definition, measurement must be objective, quantitative and statistically valid. Simply put, it's about numbers, objective hard data.

The sample size for a survey is calculated by statisticians using formulas to determine how large a sample size will be needed from a given population in order to achieve findings with an acceptable degree of accuracy. Generally, researchers seek sample sizes which yield findings with at least 95% confidence interval (which means that if you repeat the survey 100 times, 95 times out of a hundred, you would get the same response) and plus/minus 5 percentage points margin error. Many surveys are designed to produce smaller margin of error.

Qualitative Research is collecting, analyzing, and interpreting data by observing what people do and say. Whereas, quantitative research refers to counts and measures of things, qualitative research refers to the meanings, concepts, definitions, characteristics, metaphors, symbols, and descriptions of things.

Qualitative research is much more subjective than quantitative research and uses very different methods of collecting information, mainly individual, in-depth interviews and focus groups. The nature of this type of research is exploratory and open-ended. Small numbers of people are interviewed in-depth and/or a relatively small number of focus groups are conducted.

Participants are asked to respond to general questions and the interviewer or group moderator probes and explores their responses to identify and define people's perceptions, opinions and feelings about the topic or idea being discussed and to determine the degree of agreement that exists in the group. The quality of the finding from qualitative research is directly dependent upon the skills, experience and sensitive of the interviewer or group moderator.

This type of research is often less costly than surveys and is extremely effective in acquiring information about people's communications needs and their responses to and views about specific communications.

Basically, quantitative research is objective; qualitative is subjective. Quantitative research seeks explanatory laws; qualitative research aims at in-depth description.

Qualitative research measures what it assumes to be a static reality in hopes of developing universal laws. Qualitative research is an exploration of what is assumed to be a dynamic reality. It does not claim that what is discovered in the process is universal, and thus, replicable. Common differences usually cited between these types of research include.

**Characteristics of quantitative and qualitative research**

| **Quantitative** | **Qualitative** |
|---|---|
| Objective | Subjective |
| Research questions: How many? Strength of association? | Research questions: What? Why? |
| "Hard" science | "Soft" science |
| Literature review must be done early in study | Literature review may be done as study progresses or afterwards |
| Test theory | Develops theory |
| One reality: focus is concise and narrow | Multiple realities: focus is complex and broad |
| Facts are value-free and unbiased | Facts are value-laden and biased |
| Reduction, control, precision | Discovery, description, understanding, shared interpretation |
| Measurable | Interpretive |
| Mechanistic: parts equal the whole | Organismic: whole is greater than the parts |
| Report statistical analysis. Basic element of analysis is numbers | Report rich narrative, individual; interpretation. Basic element of analysis is words/ideas. |
| Researcher is separate | Researcher is part of process |
| Subjects | Participants |
| Context free | Context dependent |
| Hypothesis | Research questions |
| Reasoning is logistic and deductive | Reasoning is dialectic and inductive |
| Establishes relationships, causation | Describes meaning, discovery |

| | |
|---|---|
| Uses instruments | Uses communications and observation |
| Strives for generalization<br>Generalizations leading to prediction, explanation, and understanding | Strives for uniqueness<br>Patterns and theories developed for understanding |
| Highly controlled setting: experimental setting (outcome oriented) | Flexible approach: natural setting (process oriented) |
| Sample size: n | Sample size is not a concern; seeks "informal rich" sample |
| "Counts the beans" | Provides information as to "which beans are worth counting" |

The decision of whether to choose a quantitative or a qualitative design is a philosophical question. Which methods to choose will depend on the nature of the project, the type of information needed the context of the study and the availability of recourses (time, money, and human).
It is important to keep in mind that these are two different philosophers, not necessarily polar opposites. In fact, elements of both designs can be used together in mixed-methods studies. Combining of qualitative and quantitative research is becoming more and more common.

Every method is different line of sight directed toward the same point, observing social and symbolic reality. The use of multiple lines of sight is called triangulation.
It is a combination of two types of research. It is also called pluralistic research.
Advantages of combining both types of research include:

1. research development (one approach is used to inform the other, such as using qualitative research to develop an instrument to be used in quantitative research)
2. Increased validity (confirmation of results by means of different data sources)
3. Complementarity (adding information, i.e. words to numbers and vice versa)
4. Creating new lines of thinking by the emergence of fresh perspectives and contradictions.

Barriers to integration include philosophical differences, cost, inadequate training and publication bias.

**Qualitative data analysis**

Qualitative analysis involves a continual interplay between theory and analysis. In analyzing qualitative data, we seek to discover patterns such as changes over time or possible causal links between variables.
Examples of approaches to discovery and explanations of such patterns are Grounded Theory Method (GTM), semiotics, and conversation analysis.
Qualitative researchers sometimes attempt to establish theories on a purely inductive basis. This approach begins with observations rather than hypothesis and seeks to discover patterns and develop theories.

**Qualitative data Processing**

The processing of qualitative data is as much art as science. Three key tools for preparing data for analysis *are coding, memoing*, and *concept mapping.*

*Coding* is classifying or categorizing individual pieces of data.

If you are testing hypothesis, then the codes could be suggested by the theory, in forms of variables. Open coding – codes are suggested by the researcher‘s examination and questioning of the data.

Example: 2 passages from Book Leviticus (Revised Standard version): religious bases for homophobia.

18:22 You shall not lie with male as with a woman, it is an abomination.

20:13 If a man lies with a male as with a woman, both of them have committed an abomination; they shall be put to death, their blood is upon them.

Homosexuality – key concept

Lying implies having sex

Male homosexuality

Prohibited behavior

Abomination

Put to Death

Male homosexuality is not the only abomination. Most of the abominations have to do with dietary rules and mishandling of ritual artifacts. **Thus, Dietary Rules and Ritual Artifacts are additional codes**.

Death penalty is broadly applied by Leviticus: everything from swearing to murder, including male homosexuality somewhere in between.

An extended analysis of prohibited behavior, short of abomination and death, and also turns up a lengthy list. Among them are slander, cursing the deaf, putting stumbling blocks in front of the blind people, and so forth.

*Memoing* writing memos or notes to yourself and others involved in the project.It is appropriate at several stages of data processing to capture code meaning, theoretical ideas, preliminary conclusions, and other thoughts that will be useful during analysis.

*Concept mapping* uses diagrams to explore relationships in the data graphically

**Basic Research And Applied**

**Basic Research** is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view.

**Applied research** is also an original investigation undertaken to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective.

**Experimental development** is systematic work, drawing on existing knowledge gained from research and/or practical experience that is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed."

**Content In The Proposal**

What follows is more information about what is required in the various sections of your evolving research proposal.

I. **The Problem**. You should begin by stating what the problem is that you are going to research. You should give the reader an idea of the project you intend to undertake.

II. **Importance to the Discipline**. Not every topic is worth researching. What should guide your choice of a topic is that it is important and relevant to the field in which you are engaged. You must convince the reader that your topic is important. It is here that you need to integrate some theory that supports the need to investigate your topic.

III. **Literature Review**. Your review should follow the introduction of the problem and should include a logically organized review of the relevant literature. You should give a summary of the theory that guides your work, as well as discuss what others have found who have done the same or similar research. If you are proposing to replicate someone else's work, you should say why. For example, do you wish to extend the generalizability of their findings, or are you hoping to improve on their methodology? Tell why. There is no need for you to rediscover the wheel; therefore, be careful in your search of the literature.

List Questions/Hypotheses. Your review of the literature should lead you to your research questions. In other words, these questions should be a natural outgrowth of your review of others' work. State these questions concisely. Be clear about what you are going to try to prove or disprove. If the reader cannot understand what you are proposing, then you are not making a strong argument

Hypothesis: A statement that specifies how two or more measurable variables are related. e.g

**(H1):** Women are more likely than men to make impulse purchases of our brand.

**(H2):** Decreasing price by 10% will increase unit sales by 30%.

**(H3):** Adoption of our new product will be greater in Northern states than in Southern States.

IV. **Method of Research**. While there are various methods by which one can approach social research, there are certain parameters which must be taken into consideration and addressed in your proposal. If the parameter does not appear to be relevant to your proposed research, you must address why that may be the case. What follows below is a list of parameters which might be considered in the writing of a research proposal. During the course of the semester, we will address these and other components of a research proposal.

A. **Operationalization of the Variables**: If your question is "Is job security related to job satisfaction?" you must tell what you mean by both job security and job satisfaction, and be very specific. Will these concepts be measures by a response to a question? What is that specific question? If you are asking more than one question to capture a concept, will you form a scale measure? What kind of scale measure? Each variable must have specific operations (hence, operationalization) attached to is so that the reader knows exactly how the variable will be measured in the proposed research.

B. **Design**: Specify what research design your study will take, and why. Is it an experimental design? Will you look at one group once or on several different occasions? Will you look at more than one group? Will you
be comparing different groups? Why? Will you use a case study approach?

C**. Sample**: How will you draw your sample? What is the method(s) you will employ? How many will be in your sample? Why? Will you use probability sampling or non-probability sampling? Why?

D. **Data Gathering Method**: How will you actually gather the data that measures your variables? Will you use a survey? Will you interview people? you use existing data? Which data? If you are using specific instruments,include copies of them in an appendix to the proposal. Will you use focus groups?

E. **Ethical Considerations**: What impact might your study have on your "subjects?" What risk, if any, might you impose on the population you study by conducting the research? What are some different ways in which
the findings of your research might be utilized by others? Are there any possible political uses and what might be some implications of those uses? How your findings might be utilized differently from your research intentions?

F. **Political Considerations** : To what political ends might the findings of your research be used? It is important to be aware that one's findings,regardless of what was hypothesized, can be put to political use. If the costs of political use outweigh the benefits of the research (which is also true of ethical considerations), one must question whether to conduct the proposed research

G. **Validity and Reliability**: How will you know if you are measuring what you say you are measuring? How will you know if your data is valid? What checks for validity will you provide? Are your measuring tools reliable? How will you know if they are reliable? What will you do that will convince the reader that you have addressed validity and reliability?

H**. Limitations to the Proposed Study**: You should tell the reader some of the limitations you foresee for your study. If you are using a specific sample and this limits generalizability, you should say so. If you are testing a group that might change the effectiveness of your measuring instrument, you need to address it. Anything that might limit the knowledge gained,in any way, should be mentioned. None of us cond uct the perfect research project; therefore, it is important the we address possible limitations.

V**. Data Analysis**: How do you propose to analyze the data you would collect from this proposed research? If you posit a relationship between some of the variables, how will you determine if there really is a relationship? What statistical techniques might you use? While you are not actually going to do any statistical analysis at this point, you must have an idea of what types of analyses would be appropriate for both your variables and your research questions.

VI. **Reference List**: Any of the studies you cite in the literature review, or any other relevant works that you use in the proposal, must be included in a proper reference list. (See Writing Guidelines) Note that a reference list should include only those items actually referenced in the body of the paper. If you do not use it in the body of the paper, you should not include it inthe reference list.

VII. **Appendices:** You should attach a copy of any relevant supplemental materials, such as questionnaires, interview schedules, scoring keys (code sheets),.

**Grading Points for Proposal Papers**
Consider the following criteria used in grading to increase your skills in project proposal writing

**GRADING:** Stage 1 is worth 120 points. Stage 2 is worth 280 points and the next pages detail the grading criteria for each paper.

**RESEARCH PROPOSAL –**
**STAGE 1 – EVALUATION SHEET**
**MECHANICS (10%) – 12 POINTS**
1. Grammatical and spelling errors (possible 8 points): Average number of errors per page: 0 = 8 pts;
1 = 6 pts;
2-3 = 4 pts;
4-5 = 2 pts;
6-7 = 1 pts;
8 or more = 0 pts. _____

2. Follows required writing guidelines, including spacing, margins, and citation of sources. (4 points) _____

**ORGANIZATION (30%) – 36 POINTS**
1. Presents critical thought on the topic; i.e., does not merely provide Descriptions or lists. (12 points) _____
2. Shows evidence of careful, logical planning and presentation, with use of appropriate headings throughout proposal. (12 points) _____
3. Shows evidence of careful writing, with clear articulate use of language. (12 points) _____

**CONTENT (60%) – 72 POINTS**
1. Statement of the problem that clearly describes the topic that is being proposed for research. (10 points) _____
2. Demonstrates the importance of the topic for research and for the respective discipline. (10 points) _____
3. Integrates scholarly material and own ideas in the development and discussion of the topic. (25 points) _____
4. Uses scholarly references and shows a clear link to the existing professional literature and relevant theory. (12 points) _____
5. Poses appropriate and clear research questions/hypotheses. (15 pts

**The following are the methods of data collection**

**Observation method**

Observational research is used for studying nonverbal behaviors (gestures, activities, social groupings, etc).

Sommer & Sommer (1986) developed the list shown below to assist in observation research.

1. Specify the question(s) of interest (reason for doing the study).
2. Are the observational categories clearly described? What is being observed and why?
3. Design the measurement instruments ( checklists, categories, coding systems, etc.).
4. Is the study designed so that it will be 'Valid (i.e., does it measure what it is supposed to measure, and does it have some generalizability)?
5. Train observers in the use of the instruments and how to conduct observational research.
6. Do a pilot test to (a) test the actual observation procedure and (b) check the reliability of the categories of observation using at least two independent observers.
7. Revise the procedure and instruments in light of the pilot test results. If substantial changes are made to the instrument, run another pilot test to make sure changes will work under the field conditions.
8. Collect, compile, and analyze the data and interpret results.

Casual observation is normally done like unstructured interviews. During the early stages of a research project, casual observation allows the researcher(s) to observe subjects prior to designing questionnaires and/or interview formats.

**Types of Observation Studies**

Ethnographies which are observations of groups

Grounded theory which uses multi-staged data collection Phenomenological studies which studying subjects over a period of time through developing relationships with them and reporting findings based on research “experiences”.

Case studies which use various data to investigate the subject over time and by activity

Each research method has its strengths and weaknesses. When designing a research study it is important to decide what the outcome (data) the study will produce then select the best methodology to produce that desired information.

**SURVEY**: This is the method used to describe a method of gathering information from a sample of individuals in a population in order to learn something about the larger population from which the sample is drawn.

Types of surveys: descriptive statistics which is largely conducted by the government to obtain major descriptive information about the population and its density, the composition of the labor force, national health statistics etc.

**Survey for social research**: mainly used by social scientists to gather and a analyze information about the social and economic conditions of the population or segments

of the population and leads to the better understanding of human beings in their social settings.

**Market research survey**: this is carried on by business in consumer market research to determine consumer needs and the effectiveness of marketing programs.

**The Steps In A Survey Project**

1. Establish the goals of the project or what you want to learn
2. Determine your sample –whom you will interview
3. Choose interviewing methodology-how you will interview
4. Create your questionnaire –what you ask
5. Pretest the questionnaire, if practical test the questions
6. conduct interviews and enter data
7. Analyse the data and produce the report

**Interview**s; this may be defined as a deliberate conversation between the interviewer and an informant conducted for the purpose of collecting information. It may take the form of face to face interview schedule or telephone survey by Mbaaga (Ibid.). it may be formal or informal interview

**Formal interview:** this type involves the pre determined list of questions that are asked to all the interviewees in the same order. They may be structured with standardized questions or semi-structured with some degree of flexibility and the more structured the interview, the easier it is to quantify the results.

**Group Interview: (Focus Group Discussion) FGD**

Richard Krueger (1988), describe the focus group as a special type of group in terms of purpose, size, composition, and procedures. A focus group is typically composed of seven to twelve participants who are unfamiliar with each other and conducted by a trained interviewer. These participants are selected because they have certain characteristics in common that relate to the topic of the focus group.

The researcher creates a permissive environment in the focus group that nurtures different perceptions and points of view, without pressuring participants to vote, plan, or reach consensus. The group discussion is conducted several times with similar types of participants to identify trends and patterns in perceptions. Careful and systematic analyses of the discussions provide clues and insights as to how a product, service, or opportunity is perceived.

A focus group can be defined as a carefully planned discussion designed to obtain perceptions on a defined area of interest in a permissive, non threatening environment. It is conducted with approximately seven to twelve people by a skilled interviewer. The discussion is relaxed, comfortable, and often enjoyable for participants as they share their ideas and perceptions. Group members influence each other by responding to ideas and comments in the discussion.

**Characteristics Of Focus Groups**

Focus group interviews typically have four characteristics:

1. Identify the target market (people who possess certain characteristics);
2. Provide a short introduction and background on the issue to be discussed;
3. Have focus group members write their responses to the issue(s);
4. Facilitate group discussion;
5. Provide a summary of the focus group issues at the end of the meeting.

Other types of group processes used in human services (delphic, nominal, planning, therapeutic, sensitivity, or advisory) may have one or more of these features, but not in the same combination as those of focus group interviews.

Key Data Collection Techniques

Face to Face or personal interviews
Telephone interviews
Mail / postal interviews
E-mail interviews
Internet/ intranet (WEB PAGE)
However the above techniques may have advantages and disadvantages

The above techniques may be applied using a questionnaire,
**Questionnaire**: Is a predetermined written list of questions, which may be answered, by a subject or respondent.
The type of population, the nature of the research question and resources available determines the type of questionnaire to be used.

**Planning the Survey**

**I. Hypotheses**

- Descriptive hypotheses best answered by this method
- If you don't consider your hypotheses before writing your survey, you may be Overwhelmed with data and End up with data that doesn't address your concerns
- Good to go through several different scenarios of outcome from survey to see whether different outcomes would indeed have different implications for: Your hypotheses and What action you will take (if survey is to address applied issue)

**II. After determining precisely what you want to find out, determine who you want to ask**

A. Defining your population
B. Determining whether to use the population or to sample
C. Types of samples
1. Convenience samples
2. Quota samples
3. Random samples: Allow you to use inferential statistics to determine how closely your results reflect their population
4. Stratified random samples: The advantage of random samples, but with a smaller sample and/or greater accuracy

**III. Questionnaire, Interview, or Telephone Survey?**

A. Issues to consider
1. Cost
2. Response rate

3. Honesty of responses
4. Standardization
B. The case for the telephone survey

**IV. Format issues:**
A. Format of questions
1. Dichotomous versus continuous
2. Fixed versus open-ended

B. Format of survey
1. Structured
2. Semi-structured
3. Unstructured

C. Why a novice might be better off with fixed alternative questions and a structured survey:
1. Data is easily coded
2. Structure may reduce investigator bias: Data on hypothesis-confirming bias (Snyder, 1984, Snyder, 1981, Snyder and Cantor, 1979)

**V. Rules for asking good questions**
A. Use words a third-grader would understand
B. Use words that won't be misinterpreted
C. Avoid personal questions
D. Make sure your sample has the information you seek
E. Avoid leading questions
F. Avoid questions loaded with social-desirability
G. Avoid double-barreled questions  negation
H. Keep questions short and concise
I. Avoid negations  barrel
J. Avoid irrelevant questions
K. Pretest the questions

**VI. Analyzing survey data**
A. Summarizing data
B. Summarizing interval data
C. Summarizing ordinal or nominal data
D. Using inferential statistics
1. Parameter estimation with interval data
2. Hypothesis testing with interval data
a. Relationships among more than two variables
b. More complicated procedures
E. Using inferential statistics with nominal data
1. Estimating overall percentages in population
2. Relationships between variables

**A. Literature review**
1. To avoid doing a study that has already been done
2. To learn from others' mistakes and successes

B**. Ethical concerns**

1. Assessing potential gain:

- Is it a test of theory?
- Does it address a practical problem?
- Does it open up new lines of inquiry?
- Be sure you're **not** trying to prove the null hypothesis or unwittingly replicating a study that has been done before.
- Peer review

2. Assessing potential harm:

- Are ethical principles compromised?
- Peer review
- Review by professor
- Review by ethics committee
- Practical concerns

Should scientific principles be used to study humans and other animals?
Only if:
A. The potential benefits exceed the potential harm.
B. The potential for harm has been minimized
II. Maximizing benefits
A. Getting a good, useful idea to test.
B. Providing a valid test of that idea. The study should have at least one of the following three types of validity. The type or types needed depend on the research question.

**Documentary Analysis**

This is also known as the study of documents where documents are the materials which contain the information we wish to study. It is important to note that all studies begin by a review of related literature and certain documents; this may become a method of data collection if the research based on available documents.

Documents are divided into two broad categories namely primary (eye witness account written by people who experienced the particular event or behavior) and secondary documents (accounts written by those who were not present during the event but received the necessary information for compiling the documents by interviewing the eyewitnesses or reading the primary documents.

Primary documents may include things like letters, agendas, committee minutes, financial accounts and diaries. Secondary documents may include things like books, newspapers, journals articles etc.

Forms of documentary Analysis: Historical, Literature, Meta-Analysis Diaries and Content Analysis

**Content Analysis**

Content analysis systematically describes the form or content of written and/or spoken material. It is used to quantitatively studying mass media. The technique uses secondary data and is considered unobtrusive research.

The first step is to select the media to be studied and the research topic. Then develop a classification system to record the information. The techniques can use trained judges or a computer program can be used to sort the data to increase the reliability of the process.
Content analysis is a tedious process due to the requirement that each data source be analyzed along a number of dimensions. It may also be inductive (identifies themes and patterns) or deductive (quantifies frequencies of data). The results are descriptive, but will also indicate trends or issues of interest.

**Experimental Designs**
1. True Designs
2. Quasi Designs
3. Ex Post Facto Designs

**True Designs - Five Basic Steps to Experimental Research Design**
1. Survey the literature for current research related to your study.
2. Define the problem, formulate a hypothesis, define basic terms and variables, and operationalize variables.
3. Develop a research plan:
    a. Identify confounding/mediating variables that may contaminate the experiment, and develop methods to control or minimize them.
    b. Select a research design as seen already above
    c. Randomly select subjects and randomly assign them to groups.
    d. Validate all instruments used.
    e. Develop data collection procedures, conduct a pilot study, and refine the instrument.
    f. State the null and alternative hypotheses and set the statistical significance level of the study.
4. Conduct the research experiment(s).
5. Analyze all data, conduct appropriate statistical tests and report results.

**Quasi Designs**
The primary difference between true designs and quasi designs is that quasi designs do not use random assignment into treatment or control groups since this design is used in existing naturally occurring settings.
Groups are given pretests, then one group is given a treatment and then both groups are given a post-test. This creates a continuous question of internal and external validity, since the subjects are self-selected. The steps used in a quasi design are the same as true designs.

**Ex Post Facto Designs**
An ex post facto design will determine which variables discriminate between subject groups.
Steps in an Ex Post Facto Design
1. Formulate the research problem including identification of factors that may influence dependent variable(s).
2. Identify alternate hypotheses that may explain the relationships.
3. Identify and select subject groups.
4. Collect and analyze data

Ex post facto studies cannot prove causation, but may provide insight into understanding of phenomenon.

**Data Analysis**

The data collected in a given research can be analyzed either qualitatively or quantitatively depending on the nature of the data collected. In analysing the data,you need to develop skills in finding patterns in the data and to have the ability to isolate critical facts and information from other information that is not so important. Although the analysis depends on the type of data collected, how the data collected depends on the type analysis anticipated.

**Qualitative Data Analysis**

Its normally analyzed continuously during and after data collection (Mbaaga 1990). The analysis involves a pure description of events, places, people or objects. This will enable the reader to know what happened, what it was like from the participant's activities etc. In most cases qualitative analysis does not go beyond the measure of central tendency and measure of dispersion (mean, mode, median, range, and standard deviation)

Thus the analysis takes place simultaneously during and after the data collection (Merrian et al 1995), this enables the researcher to make adjustments, restructure and if possible examine emerging concepts not originally in the study design.
How ever NVivo 8 is a software package for analysis of qualitative data, such as transcripts of in-depth interviews, focus groups and field notes.

**Quantitative Data Analysis**

This type of data can be analyzed by use of statistical procedures after the researcher has measured the relevant variables. The first step in quantitative data analysis is to prepare the raw data and transform them into a data set in machine readable format (in a form that can be read by a computer

Raw data is a collection of unprocessed measurements such as pile of completed questionnaires, strings of numerical codes applied to written texts etc these are then transformed into ordered data set before they can be analysed. The data preparation process involves three important tasks namely;

- Coding
- Entering and
- creating

Coding where the data is grouped into certain categories and assigned specific codes and process involves translating verbal responses into numerical codes that facilitates data manipulation. Then after the data is coded it is entered into computer for analysis using the appropriate statistical package. How ever before the analysis, data has to be cleaned i;e the information has to be edited or cross checked for errors if good results are to be expected and Following data entry, some data manipulation is usually needed to manipulate the entered ("raw") data into structures that are suitable for analysis. Typically, data manipulation tasks include

- *Copying data*
- *Selecting subsets of the data*
- *Restructuring the data to make analysis easier*
- *Transforming data*
- *Merging data at different levels*

**Copying data**
To avoid confusing the entry and the management, we suggest that you copy the raw data to a second sheet. This is easily done in Excel by creating a new worksheet (Insert => Worksheet), using Edit => Copy to copy the original data to the clipboard, and then Edit => Paste Special (rather than Paste) and clicking the Paste Link button. This ensures that the data in the new sheet are linked to the original data, so that any subsequent changes to the original are reflected automatically in the copy.

It is a good idea to get into the habit of naming sheets. In general your analysis will be simpler to follow if you use more sheets, rather than putting all your information together in a few sheets. But you then need to give them meaningful names so you can easily find them and retrieve the information that you want.
Also, you can take advantage of Excel's facility for naming cells or areas of cells (Insert => Name => Define). This makes it much easier to refer to your data, rather than using cell addresses.

**Selecting subsets of the data**
It is often useful to look at subsets of the cases (rows) in your data, for example to concentrate on female subjects, or on cases that show abnormally large values for a particular variable. Excel has some excellent filtering facilities for selecting rows of interest, in particular the automatic filter (Data => Filter => Autofilter). This allows you to display only those rows containing particular values of one or more variables. By using the Custom option, you can specify up to two specific criteria for each variable. All rows that do not meet the criteria are hidden from view (but are not deleted). More complex filtering can be achieved using the Advanced Filter facility (Data => Filter => Advanced Filter), but this is more difficult to use.

**Restructuring data**
It is often necessary to extract some of the data and convert them to a different structure. The most common requirement is to split a data column into several columns, one for each level of a factor (or combination of factors). For example, we may wish to separate data for males and females, so that we can process them separately or compare them.
We call this process "unstacking", since in list format the data for a variable are held in a single column for all levels of a factor (i.e. stacked on top of each other).

**Transforming data**
You will commonly need to perform some transformations of the original data (for example, taking logarithms or converting from grammes per plot to tonnes per hectare). This is easily achieved by adding a new column to a copy of the data, and using a suitable Excel formula to transform the data contained in an existing column. The need to add new columns to your data is one of the reasons that we recommend taking a copy of your original data.

**Merging data at different levels**

When you have data at multiple levels, you may wish to incorporate data about one level in the data at a more detailed level. For example, records about individuals may contain an indication of which household they belong to. You may wish to add some details about the households to the individual data.

This can be achieved using the Excel lookup function. For each column of household information that you want to incorporate, you should create a new column in the individual table and use lookup to extract the appropriate information from the household data for each individual.

The analysis can be done at three levels depending on the investigation of the study namely;

**At univariate level of Analysi**s: frequency tables to provide an enumeration of activity of people that have pre-specified characteristic. Percentages can also be presented so as to show the distribution of people that have certain characteristics within the total population of the study.

Suitable aids to visualizing your data fall generally into the following categories:

Graphics, which give a picture of the structure of your data and the relationships within them

Tables, which enable you to compare values, frequency counts, etc between levels of factors. Other univariate descriptive statistics include measures central tendency (e.g. mean, median, mode),deciles, quartiles and measures of dispersion(e.g. ,range, mean deviation, standard deviation, coefficient of variation).

**At The Bivariate** this involves making contingency tables between the dependent variable and the independent (explanatory variables). In order to establish relationship between the independent and the dependent variable Pearson -chi square test statistics can be used to measure the degree of association.

At multivariate can be used to carry out further investigation to establish the relative importance of the dependent variable.

NB programs we teach most statistical packages used in analysis like SPSS, STATA

**Difference Between Research Proposal And Project Proposal**

| **A research proposal** | **A project proposal** |
|---|---|
| Exclusively written by academics and students in institutions of higher learning | Not restricted to academics |
| Review of related literature is emphasized | Literature review section is absent |
| Focuses on collecting data on a problem which will be analyzed for drawing conclusion and making recommendation | Makes use of the recommendations of a study to solve the problems of a given community |
| Bibliography and references are a must | Bibliography and reference may not be necessary |
| May be written and presented in chapters | Written and presented in sections |
| Proposals especially written by students | The primary aim is to seek financial |

| | |
|---|---|
| may not necessarily be presented to seek financial assistance | assistance |
| May not need a follow up action | Emphasizes a follow up action |
| Evaluation plan not necessary | Evaluation plan a must |

The structure of a research report

- Title
- Table of content
- An abstract
- Chapter one: Background to the problem
- Chapter two: Literature review
- Chapter three: Methodology
- Chapter four : Results /findings of the study
- Chapter five: Discussion, Conclusion and Recommendations
- References
- Appendices

    - Timetable
    - Budget
    - Research instruments
    - Field photograps
    - Introduction letters
    - Any other important document

**Appendix**

WRITING UP RESEARCH

This is how method fits into your thesis:

| | |
|---|---|
| | **Introduction**: introduction of research problem introduction of objectives introduction of how objectives will be achieved (methodology), optional introduction of main findings and conclusions, optional |
| | **Literature review**: review of previous work relating to research problem (to define, explain, justify) review of previous work relating to methodology (to define, explain, justify) review of previous work relating to results (particularly reliability, etc.) i.e identify weaknesses and success |
| | **Method** (how the results were achieved): explanation of how data was collected/generated · explanation of how data was analyzed explanation of methodological problems and their solutions or effects |
| | **Results and discussion**: presentation of results interpretation of results discussion of results (e.g. comparison with results in previous research, effects of methods used on the data obtained) |
| | **Conclusions**: has the research problem been "solved"? to what extent have the objectives been achieved? what has been learnt from the results? how can this knowledge be used? what are the shortcomings of the research, or the research methodology? etc. |
| | **analysis**: classes of data are collected and studies conducted to discern patterns and formulate principles that might guide future action |
| | **Case study**: the background, development, current conditions and environmental interactions of one or more individuals, groups, communities, businesses or institutions is observed, recorded and analyzed for stages of patterns in relation to |

| | |
|---|---|
| | internal and external influences. |
| | **Comparison**: two or more existing situations are studied to determine their similarities and differences. |
| | **Correlation-prediction**: statistically significant correlation coefficients between and among a number of factors are sought and interpreted. |
| | **Evaluation**: research to determine whether a program or project followed the prescribed procedures and achieved the stated outcomes. |
| | **Design-demonstration**: new systems or programs are constructed, tested and evaluated |
| | Experiment: one or more variables are manipulated and the results analyzed. |
| | **Survey-questionnaire**: behaviors, beliefs and observations of specific groups are identified, reported and interpreted. |
| | **Status**: a representative or selected sample of one or more phenomena is examined to determine its special characteristics. |
| | **Theory construction**: an attempt to find or describe principles that explain how things work the way they do. |
| | **Trend analysis**: predicting or forecasting the future direction of events |
| | **Descriptive narration** tells the story from beginning to end in chronological order, utilizing limited generalizations and synthesized facts. |
| | **Interpretive analysis** relates one event to another event. The event is studied and described within a broader con- text to add meaning and credibility to the data. For example, an examination of the development of a local jurisdiction's ability to dedicate land for parks may be related to the urbanization and loss of open space in our communities. |
| | **Comparative analysis** examines similarities and differences in events during different time periods-for example, the budget-cutting priorities and procedures of the Proposition 13 era of the early 1980s in parks and recreation as compared to the budget-cutting priorities and procedures of today |
| | **Theoretical and philosophical analysis** utilizes historical parallels, past trends, and sequences of events to suggest the past, present, and future of the topic being researched. Findings would be used to develop a theory . For example, an analysis of public recreation agency goals and objectives of previous eras can be used to describe the future in the context of social, political, economic, technological, and cultural changes in society. |

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| Course Name | : Entrepreneurship Skills & Practice |
|---|---|

**Course description**

The Course explains different approaches to entrepreneurship theory, differentiate between myths & realities about entrepreneurs, differentiate between Intrapreneurship and entrepreneurship, analyze the causes of early failures of entrepreneurial ventures, factors that determine emergence of entrepreneurs, creating and developing the business, searching for and generating business ideas, buying and starting a business, financing new ventures, and franchising.

**Course objectives**

- To provide awareness and ability to identity opportunities, challenges, and procedures and creates enterprise culture among students.
- To help in changing the attitudes of students so as to become entrepreneurial figures in their everyday lives.
- To help students receive proven strategies and support for starting, managing and growing business.
- To provide knowledge and skills to students in order to develop business plans as well as searching for business ideas.

**Course Content**

**Introduction**

- Key elements in the definition of entrepreneurship
- Who is an entrepreneur
- Who is a social entrepreneur
- Why is there a growing need for social entrepreneurs
- Characteristics of social entrepreneurs
- The nature of entrepreneurship
- Approaches to entrepreneurship theory
- Myths and realities about entrepreneurs
- Causes of early failures of entrepreneurial ventures
- What government can do to encourage new enterprises

**Factors that determine emergence of entrepreneurs**

- Personality factor
- Upbringing factor
- The employment/work history
- Social factor growth of the service sector
- Environmental factors

**Creating and developing the business**

- Searching for business ideas
- Sources of ideas

**Methods of generating ideas**

- The focus group
- Brain storming
- Problem inventory analysis

- Strategic window I use to selecting ideas

**Buying or starting a business**

- Questions to ask before buying a business
- Advantages of buying a business
- Disadvantages of buying a business
- Advantages of starting a business
- Disadvantages of starting business

**The business plan**

- Overview of a business plan
- Reasons for writing a business plan
- Contents of a business plan

**Intrapreneurship (Corporate Intrapreneurship)**

- Definition of corporate Intrapreneurship
- Advantages of Intrapreneurship
- Conditions for establishing Intrapreneurship in organizations
- Importance of Intrapreneurship
- Classifications of Intrapreneurship
- Corporate new ventures creation
- What retards Intrapreneurship

**Financing new ventures**

- Sources of finances
- Advantages of each source
- Disadvantages of any associated source
- Advantages associated with debt financing
- Factors considered before extending a loan

**Venture Capital**

- Overview of venture capital
- Consideration when raising venture capital
- Advantages of venture capital financing

**Franchising**

- Description of the term franchising
- Advantages of franchising
- Disadvantages of franchising
- Questions to ask before franchising
- Key things to consider when planning to purchase a franchise
- Areas covered by a typical agreement

**Other related topics;** Social Entrepreneurs as engines of innovation, patient capital, procuring social investment, social return on investment & its importance, community members as social entrepreneurs, supporting local entrepreneurial talent

**Mode of delivery** Face to face lectures

**Assessment**
**Coursework** 40%
**Exams** 60%
**Total Mark** 100%

**Introduction**

With high unemployment and also public sector retrenchment issues to do with downsizing in organizations and other restructuring programmes in many countries, self employment and small enterprise creation are now being emphasized. As a result, there has been much concern among the policy makers to re-orient the education and training systems to prepare the learners for a condition where formal employment may not exist or may be limited.

In the process, some countries have initiated programmes to put entrepreneurship education on their curriculum. This seeks to develop entrepreneurial skills which will enable the trainees to set their own businesses at some point in the future and also to work productively in Small and Medium Enterprises (SMEs). In most countries of the world, the SMEs account for over 70% of employment and they constitute over 80% of enterprises of all countries.

Job creation depends largely upon the initiation and expansion of the small and medium enterprises and this is basically the work of the entrepreneurs. Entrepreneurs have the ability to generate new ideas and develop new products and services that create new businesses which in turn creates new jobs.

**AIM**

The aim of this course is to give awareness, ability to identify opportunities, challenges, procedures and to create and enterprise culture among the learners. It also aims at changing the attitudes of people so as to become entrepreneurial in their everyday lives.

Become a more successful entrepreneur by taking one of our courses! You'll receive proven strategies and support for starting, managing and growing your business. If you need help with a business or marketing plan, how to handle employees, how to use internet marketing, how to find financial assistance, how to conduct interviews or how to write business letters, you'll find it in our courses covering all these areas and more in this entrepreneurial category.

We know you're busy and that's why a short course will suit your lifestyle and schedule. Our courses are self-paced and low cost. You decide when working on your class is most convenient, especially during the weekend, in any time-zone. Enroll in our courses and be informed and inspired by the lesson material. Happy learning!

Entrepreneurship Skills and Practice Course has set the learning in which at the end of the course, participants are expected to be able to:

- Understand the different approaches to Entrepreneurship theory.
- Differentiate between myths and realities about entrepreneurs.
- Analyze the causes of early failures of entrepreneurial ventures and develop strategies to curb the situation.
- Know the role played by entrepreneurs in an economy.

- Understand the determinant factors for the emergency of entrepreneurs.
- Differentiate between Intrapreneurship and Entrepreneurship.
- Understand the conditions favorable for establishing intrapreneurship in Organizations, its importance and the different classifications.
- Know and understand the different sources of financing new ventures, the advantages and disadvantages of each source.
- Searching for and generate business ideas /opportunities from different sources using different methods.
- Create and develop businesses after identifying the opportunities for marketing a product or service.
- Systematically, develop and prepare business plans and proposals.
- Locate businesses appropriately after understanding the general elements for an ideal location for a business.

**Who is an Entrepreneur?**

A common misconception is that any businessman, or anyone who starts a business, is an entrepreneur. But starting a business, according to economists Say and Schumpeter, is not the main component of entrepreneurship. Rather, entrepreneurship is concerned with stimulating economic progress through innovation and action. In the early 19th century, the French economist Jean Baptiste Say described entrepreneurs as “the venturesome individuals who stimulated economic progress by finding new and better ways of doing things.” In other words, entrepreneurs optimize the allocation and use of resources to generate maximal profits.

In order to achieve his economic objectives, the entrepreneur’s mindset must be innovative, creative and goal-oriented. In the words of 20th century economist Joseph Schumpeter,

“the function of entrepreneurs is to reform or revolutionize the pattern of production…by exploiting an invention or, more generally, an untried technological possibility for producing a new commodity or producing an old one in a new way, by opening up a new source of supply of materials or a new outlet for products, by reorganizing an industry and so on.”

Moreover, the entrepreneur thrives on problems and is motivated by the idea of altering an unpleasant situation. Rather than waiting for instructions, the entrepreneur initiates direct action. If the entrepreneur sees a more effective method of doing things, they will not hesitate to do away with existing systems in favor of a whole new approach to a problem. The entrepreneur has the courage to take calculated risks, sometimes even doing “things that others think are unwise, or even undoable.” The entrepreneur also carries projects through to completion and is uninhibited by occasional setbacks or challenges.

**Who is a Social Entrepreneur?**

The social entrepreneur harnesses entrepreneurship skills to do social good. According to J.Gregory Dees, social entrepreneurship "combines the passion of a social mission with an image of business-like discipline, innovation, and determination commonly associated with, for instance, the high-tech pioneers of Silicon Valley." The social entrepreneur's philanthropic energies are channeled into business ventures, creating value in business so that consumers are willing to pay for the goods and services, and by doing so, the social entrepreneur earns a profit which is invested in the social ventures. According to Martin & Osberg, "the Social Entrepreneur aims for value in the form of large-scale, transformational benefit that accrues either to a significant segment of society or to society at large." Moreover, the social entrepreneur targets its programs at the "underserved, neglected, or highly disadvantaged population that lacks the financial means or political clout to achieve the transformative benefit on its own." Social entrepreneurs are builders of a better world.

**A case in Point: Victoria Hale**

A few years ago, Victoria Hale realized that vital drugs were not getting to the poor because profit-driven drug companies were unwilling to develop drugs for the poor, who could not afford to pay for them. Determined to challenge this unjust status quo, Hale founded the Institute for OneWorld Health, a nonprofit pharmaceutical company that works to ensure that the poor have access to vital drugs for infectious diseases regardless of their ability to pay. The Institute for OneWorld Health is the first of its kind. Recently, it obtained permission from the Indian government to use a drug, paromomycin, which cures visceral leishmaniasis, a disease that kills more than 200,000 people each year. Victoria hopes that her pharmaceutical model will provide enduring benefits for the disadvantaged.

**What is the difference between entrepreneurship and social entrepreneurship?**

The entrepreneur's final objective is wealth creation. However, for the social entrepreneur, wealth creation is simply a means to an end. The social entrepreneur participates in profit-seeking business ventures if only to use the profits generated to create valuable social programs for the whole community.

**Why is there a Growing Need for Social Entrepreneurs?**

In the current economic crisis, financial pressures are exacerbating existing social problems such as poverty and unemployment. According to J. Gregory Dees, social entrepreneurship is necessary to mitigate the financial repercussions on the most vulnerable in society:

"Fewer people will receive adequate health care. Because of the financial burden that formal education can place on parents, fewer children will attend school. Tensions and violence may increase as the poor compete for jobs and income opportunities...Progress will be lost, as families that have been successful in moving out of poverty fall back into it...As government, business, and household budgets tighten, costly environmental protection and clean-up efforts are in jeopardy...Because many social and environmental issues are time sensitive, failure

to recognize the importance of social entrepreneurship and provide adequate support for such efforts during this downturn would be a serious mistake."

## THE DEFINING CHARACTERISTICS OF SOCIAL ENTREPRENEURS

**Social entrepreneurs are:**

**Social Catalysts** – They are visionaries who create fundamental social changes by reforming social systems and creating sustainable improvements. According to J.Gregory Dees, "though they may act locally, their actions have the potential to stimulate global improvements in their chosen arenas, whether that is education, health care, economic development, the environment, the arts, or any other social field."

**Socially aware** – Social improvement, as opposed to the creation of profit, should be the ultimate goal of the social entrepreneurs. The success of their endeavors is measured by their social impact, not by the amount of profits generated.

**Opportunity-seeking** – They pursue their goals relentlessly, seeing every obstacle as an opportunity to develop and fine-tune their business models.

**Innovative** – They are creative, willing to think outside the box and ready to apply ideas to new situations. They understand that not every innovation will be a success, and they see failures as learning opportunities even as they strive for success.

**Resourceful** – Their visions are not limited by the resources that they have. Besides optimizing the use of existing resources, they actively expand their resource pool through collaboration with others.

**Accountable** – Social entrepreneurs are accountable to their beneficiaries, and they often ask themselves, "Am I creating value for the people I am serving? Do I understand their needs?" This is because social entrepreneurs want to know that they are actually making an impact. They are also accountable to investors who want to know that their contributions are indeed stimulating social improvements as promised by the social entrepreneurs.

## THE NATURE OF ENTREPRENEURSHIP

Entrepreneurship is a concept that has evolved over time and there has been a lot of questions as to who is an entrepreneur, what is entrepreneurship and what is an entrepreneurial process. However, the word entrepreneurship has been defined in different ways by different authors.

According to Hisrich and Timmons, entrepreneurship is the process of creating something new with value by devoting the necessary time and effort, assessing the accompanying risks and receiving the resulting rewards.

It is the process of identifying opportunities in areas that have been overlooked by others or where there where others see chaos, contradiction and confusion.

Usually an entrepreneur is defined from three perspectives;

- As a manager: Undertaking an activity i.e. defied by the means of particular tasks he7she performs.
- As an Agent of Economic change: defined by the effects they have and the types of changes they create.
- As an individual: defined by the means of their psychology and personality traits.

The key elements in the definitions of Entrepreneurship include:

- Observing the environment
- Identifying something one can do and can get benefit from.
- Devoting the necessary time and effort.
- Accepting the accompanying or likely risks.
- Receiving rewards or profits.

## APPROACHES TO ENTREPRENEURSHIP THEORY

There is no universal acceptable theory about entrepreneurship since there are different opinions as the emergence of entrepreneurship. The opinions may be classified into categories in an attempt to explain the entrepreneurship theory.

These categories are:

- The psychologist theory.
- The sociologist theory.
- The Economist theory.

### The Psychologist Theory

This theory pays attention to the personal traits, motives and incentives of an individual. (According to Mac Clelland), it is the high need for achievement which drives people towards entrepreneurial activities. He noted that a society with generally high need for achievement or urge to improve produces more energetic entrepreneurs.

In the same way individuals with high achievement motive tend to take keen interest in conditions of high risks and always have a desire for responsibility as well as high level of performance.

### The Sociologist Theory

This theory explains entrepreneurship as a process where individual's sociological background i.e. one of the decisive factors to become an entrepreneur i.e. entrepreneurship is a response to unfavorable social conditions.

People become creative (entrepreneurial) in areas where they are socially deprived or where they see the possibility of being disadvantaged. The sociologist believe that entrepreneurship is most likely to emerge under a specific social culture e.g. Social sanctions, where people see some cultural values to be promoted, the role expectations. All these are responsible for the emergence of entrepreneurship.

**The Economist Theory**
Entrepreneurship was first identified by an economist as a factor of production. Schumpeters (1954) launched the field of entrepreneurship as a tool for innovation. He said that the concept of entrepreneurship lies in the perception and exploitation of new opportunities in the practice of business.

On the other hand other economists pointed out that economic incentive are the main drive for entrepreneurial activities i.e. A person's inner drives have always been associated with economic gains. The incentives and the gains are regarded as the sufficient conditions for the emergence of entrepreneurship.

## MYTHS AND REALITIES ABOUT ENTREPRENEURS

- All entrepreneurs tend to be alike. The reality is that not all of them are alike. They are different in terms of their ages, education level experience, skills, etc.
- Entrepreneurs are driven by greed, power and lust for money. The reality is that what really drives entrepreneurs is personal achievement not greed or lust for money.
- Obtaining financing for a new venture is the most difficult step. The reality is tat finance is not the main obstacle but the inadequacy of the financial institutions (banking systems)
- Entrepreneurs are reckless risk-takers. However, the reality is that they are not reckless risk takers. They are also averters i.e. they avoid high risk situations.
- Entrepreneurs sacrifice morals for profits; the reality is that entrepreneurs are honest people of integrity who also depend on the trust of their customers, their suppliers and their money lenders.
- Entrepreneurs must have a good idea but the reality is that it is not only good ideas which matters but also experiences only 1/100 ideas result into business and only 5/10 of the new businesses survive more than five years.
- Some people say that women entrepreneurs cannot be successful. The reality is that women entrepreneurs are more successful than their male counterparts. Reasons
- : They are good at loan repayment, they only consume profits instead of capital for their male counterparts.

## CAUSES OF EARLY FAILURES OF ENTERPRENEURIAL VENTURES.

The causes of early failures of entrepreneurial ventures are mainly external and they include:

- **Bureaucracy**: This refers to detailed regulations that are unrequired i.e. long delays in obtaining permits and a complex network of decision makers.

- **Inadequate financial Markets and Institutions i.e. in terms of banking services:** These are not readily available especially to the local population where the majority live. This makes it difficult for entrepreneurs to carry out their transactions in their local areas.
- **Inadequate infrastructure**: In connection with lack of reliable communication network which includes transportation services.
- **Technological problems**: Lack of access to modern technology is one of the main obstacles to new enterprises for those dealing in exports.
- **Issues of culture:** This is one of the most important barriers to entrepreneurship. Most people tend to be reactive and conscious rather than being innovative and assertive (proactive).
- **Low business ethics:** People are not always honest in their business transactions, not fair in their pricing and they also lack trustworthiness, respect for others and property is lacking.
- **Lack of the technical skills** such as experience, planning, single mindedness, and also some people do not know where to invest and therefore some over invest in fired assets

**WHAT GOVERNMENT CAN DO TO ENCOURAGE NEW ENTERPRISES:**

- There is need for partnership between government and businesses foreign investors and entrepreneurs, International institutions and government.
- Government policy should be favorable i.e. favorable to private initiative thus there must be clear national priorities.
- Clear legal framework covering property rights, transfer of ownership and competition.
- Emphasize reasonable and simple taxes in terms of assessment and administration.
- Provide favorable conditions for International trace, investment and co-operation.
- Control Inflation which encourages people to invest now.
- Scrap unnecessary bureaucratic procedures and employ simple analysis especially in terms of time duration i.e. how long it takes and how many people are involved in giving various permits e.g. when creating a company, buying property, opening an office, importing raw materials, exporting finished products, permission to borrow money from a micro finance institution.
- Provision of reliable transportation, power and communication in terms of accessibility, telephone network.
- Well conceived and realistic strategies and action plans for attracting foreign investment, technical training, management and staff training in Languages, Accounting, Marketing ethics, Professional services, Consulting etc.
- Export development assistance can be offered to entrepreneurs, setting up business development centers.

**THE ROLE OF ENTREPRENEURS IN AN ECONOMY**

- Promoters of Economic change - They scan the environment and identify opportunities.
- They mobilize resources and implement business ideas.
- They distribute goods and services.

- They spread innovative ideas which expands the boundaries of economic activity,
- Employment Creators Apart from gaining self employment, entrepreneurs also provide job opportunities to others.

- o Market Efficiency providers - Entrepreneurs compete for the market as they seek profits, they also ensure that markets are efficient and prices are controlled.
- o They also process market information especially by forcussing on information not being exposed yet.
- o They transform market information into opportunity and pursue them.

**FACTORS THAT DETERMINE EMERGENCE OF ENTREPRENEURS**

Many people think that going into business or becoming an entrepreneur is solely to make money. The desire to earn money is infact an important factor but not the sole reason. There are other factors that inspire people to become entrepreneurs:-
They include the following:

- o **Personality factor.**

This is one of the factors considered to be a determinant factor in the emergence of entrepreneurs, personally can be looked at differently but generally it is a consistent or persistent belief, feeling and action which makes an individual distinct from another.
Psychologists have been much interested in personality and they have been constantly exploring and investigating it and one of the most acceptable researchers to explain personality has been MacClelland. He identified “Need for Achievement” as the fundamental driving force in the personality of successful entrepreneurs.

According to this theory, an individual need for achievement refers to the need for personal accomplishment and it is a drive to excel or to thrive for success and achieve something that makes somebody become an entrepreneur.
High achievers are not motivated by money alone but instead employ money as a method of achieving their goals.
Other personality factors which make an individual become a successful entrepreneur include ambition, hard work, and strong desire for independence among others.

- o **Upbringing factor (Family background)**

The personality factor alone cannot or may not make an individual an entrepreneur. The family background, moral support, encouragement of family members, friends and relatives may lead to growth of entrepreneurship. Previous association in the family business may also serve as the foundation for building and accelerating the process of becoming an entrepreneur.
Education is equally important in bringing up a child. The educational background also determined the emergency of entrepreneurs. Research shows that most of the technically qualified persons tend to establish enterprises in the fields of their specialization. This shows those entrepreneurs are prompted by their qualifications and educational level.

- o **The Employment /Work History**

Employment or worm experiences can provide confidence to the entrepreneurs i.e. people can scrutinize the work – experience and skills from the job being or previously done to start a new venture. This may result from t he opportunity of being in the job e.g. availability of resource expertise. On the other hand, it may be a result of dissatisfaction or losing a job.

- **Social Factors**

Migration or ethnic factors may lead to socially disadvantaged or marginalized society / community. Such groups usually seek ways of survival under harsh conditions. People tend to become creative or entrepreneurial in areas where they are socially disadvantaged e,g Americans today, Japanese.

- **Growth of the Service Sector**

The service sector is growing at a faster rate than before. Most small scale businesses are service providers rather than manufacturers e.g. Telephone services, restaurants, salons transporters, etc. This is because it requires low a capital base to start such businesses and also less overhead costs.

- **Environmental factors**

Environmental factors are not the main motivating factors but they play a role of contributing in the implementation of the entrepreneurship idea e.g. new entrepreneurs may be inspired by the perception of the community in which they live. The government support, assistance from the financial institutions, encouragement from big businesses and success stories of other entrepreneurs.

- **Culture (Norms, Values, attitudes, beliefs)**

Entrepreneurship can be influenced by the culture of the society career. Hofstede identified some dimensions of national culture that may influence the move to entrepreneurship as follows:

- **Individualism Vs Collectivism.**

This dimension of culture is a measure of the relationship between individuals and other people and the degree to which people prefer to have personal freedom rather than groups. This dimension correlates most strongly with entrepreneurship development.

According to Hofstede, individualistic societies are more industrialized than the collectivistic society. This means individualistic societies are more entrepreneurial than those who practice collectivism.

- **Power distance (social group between individuals)**

The power distance evaluates the way a particular society handles inequality among people. Societies with less power distance are more industrialized than those with a wider power distance. In societies where there is less power distance, managers prefer to consult with their subordinates in decision making and also authority can be challenged from time to time. On the other hand, a society wit a wide power distance is less consultative and authorities are not challenged and the people are expected to follow orders without questioning. This means that societies with less power distance are more creative and therefore more entrepreneurial.

- **Uncertainty Avoidance**

This dimension measures how society deals with uncertainty of the future. A low uncertainty avoidance society is that which does not feel threatened by the uncertainty of the future. i.e. It is generally firm and tolerant. Individuals who come from such societies are more likely to become entrepreneurs than those from uncertainly avoidance.

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- **Masculinity Vs Femininity**

This refers to the inflexibility of sex roles in a given society. Hofstede defines a society as Masculine if there are extensive decisions of roles by sex and as feminine if these divisions are relatively small. The Masculine society is characterized by competition, ambition, assertiveness and aggressiveness, a need to acquire money and wealth. On the other hand, the feminine society prefers solidarity, relationship and quality of life.

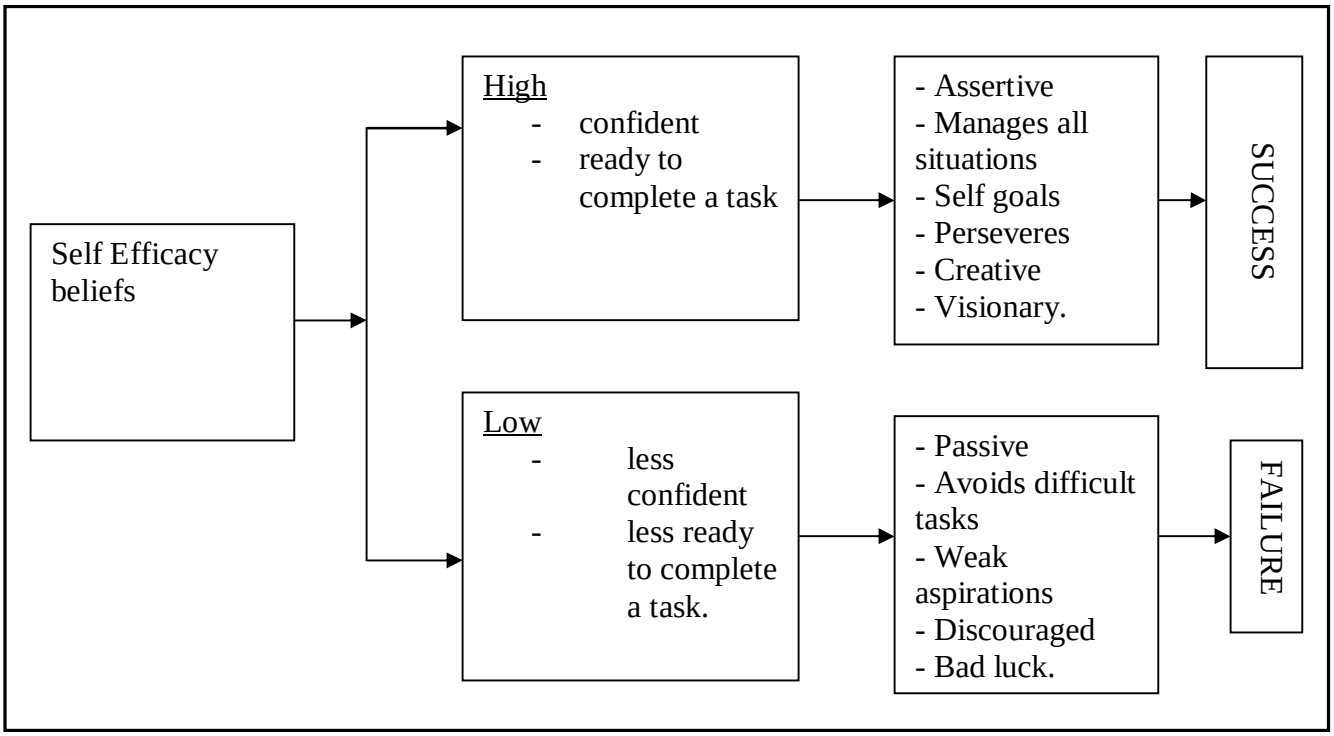
Entrepreneurs are more likely to emerge from a Masculine society than from a feminine one.

- **Self Efficacy:**

Bandra Albert (1989) defines self efficacy as the belief an individual has in his /her ability to complete a given task successfully. Self efficacy is about one's perception of his/her competences. It is a higher form of personality combining internal locus of control with goal directness and strategic orientation. The people's sense of capability influences their perception, motivation and performance. An individual's sense of self efficacy manifests in three ways:

- Magnitude i.e. The level of tasks difficulty a person believes can deal with competently.
- Strength of self efficacy - This refers to the conviction that an individual has regarding the magnitude of the task.
- Generally of self efficacy - It refers to the degree to which an individual's expectations are generalized across all situations.

**THE SELF EFFICACY MODEL:**



**Sources of Self Efficacy**

- **Past and Actual successes**, where the individual has repeated history of successes, he/she can build a strong belief to perform similar tasks. On the other hand, experience of repeated failure may lead to withdrawals.
- **Performance of others**: The performance of others can serve as a role model. Most people tend to associate themselves with successful personalities whom they want to emulate.
- **Social and Personal Persuasions**: Self efficacy is acquired through suggestions made by some members of the society. And these suggestions may influence an individual to regard him/herself capable.
- **Emotional state**: The reaction of an individual towards a task affects his/her self efficacy about completing a given task.

**ENTREPRENEURIAL CHARACTERISTICS**

Wickham Phillip noted that although there is a dividing view about entrepreneurship /neurs, there is a great deal of consistence in the way in which they approach their tasks. Wickham observed that there are common characteristics exhibited by almost all entrepreneurs and he identified the following:

- Hard work (innovativeness): Entrepreneurs put a lot of effort both physical and mental in order to create and develop new ventures. So they tend to work for long hours and with a lot of commitment to their work.
- Self-starters: Entrepreneurs identify tasks for themselves without being told what to do i.e. they carry on tasks without waiting for directives from others.
- Goal setters: They are also characterized by setting their personal goals. Successful entrepreneurs set goals which direct their activities and these personal goals become their standard for measuring their performance.
- Resilience /Persistence: Successful entrepreneurs never give up. They usually learn from mistakes to improve on their performance. They tend to recover very quickly from failures and get going.
- Confidence: Entrepreneurs not only believe in themselves but also in the tasks they are performing.
- Receptiveness to new ideas: Successful entrepreneurs accept to learn and change according to a given situation i.e. they are flexible – monitoring changes and adjusting accordingly.
- Assertiveness: Entrepreneurs have freedom to accept or reject something depending on the likely outcomes.
- Information seeking: Successful entrepreneurs are never satisfied with the information they have at any one time. They always seek other sources of information so as to identify possible opportunities.
- Eager to learn: Successful entrepreneurs are always ready to learn more and more and improve on their skills.
- Commitment to Others: Successful entrepreneurs are never selfish, they interact and share ideas and other resources with people i.e. they seek support from others.

- Comfort with power: Successful entrepreneurs are powerful and they enjoy their powers. They use their powers responsibly to influence decisions within the society in which they work.
- Risk taking: Entrepreneurs deliberately take risks and evaluate the various alternatives and they tend to involve themselves in more challenging tasks and always take action to reduce the risks.

**CREATING AND DEVELOPING THE BUSINESS**:

Creating and developing a business is a process that begins with the perception of an opportunity for marketing a product or service. After the perception of the opportunity, the entrepreneur establishes a business unit and manages it. In order to create and develop a business, the following steps must be taken into consideration.

- Searching for business ideas / opportunities

The task of establishing an enterprise begins with the search for a suitable business idea. The idea may relate to starting a new business or taking over an existing one. The idea should be sound and workable so that it may be exploited in order to get reasonable returns.

- Sources of Ideas

The ideas to start a business may originate from various sources and these include:

a. Success stories of others.

Most entrepreneurs begin their business ventures as a result of successes of those they know. E.g. friends, relatives etc.

b. Though observing the market i.e. all the potential buyers. Potential entrepreneurs should pay close attention to markets for various products and services so as to understand the demand and supply trends of such products and services. Careful observation of the market can reveal some gaps which can be turned into business opportunities.
c. Prospective consumers

Contacts with prospective consumers can provide an opportunity for creating a product or service since the consumers know best what they want.

d. Developments in other nations, people in less developed countries are generally initiators of developed countries. An entrepreneur can discover good business ideas by keeping in touch with developments in advanced nations.
e. Government Organizations.

These include development banks, exports and promotion sectors, The Uganda Manufacturers Association and Investment Authorities assist entrepreneurs in discovering and evaluating business ideas.

f. Visiting many trade fairs / Exhibitions

The natural and International trade fairs are very food sources of information. A visit to these fairs provides information about new products in the market and those that may be introduces at a later stage.

**Methods of generating ideas.**

Even if a variety of sources are available, coming up with an idea for a new venture may still be difficult. The entrepreneur can use several methods to help generate and test new ideas. The common methods are:

**a. The Focus group.**
This refers to a group of individuals who provide information in a structured format. They use a moderator to present the question or an idea focusing on some business aspects and the group gives responses.

**b. Brain Storming.**
This is a group method foe obtaining new ideas and solutions. It is an unstructured process for generating all possible ideas about a given problem within a limited time frame through indiscriminate contributions of participants of participants.

**c. Problem Inventory Analysis.**
This is a technique where consumers are provided within a list of problems in a general product category and they are asked to identify and discuss products in this category that have the particular problem presented.

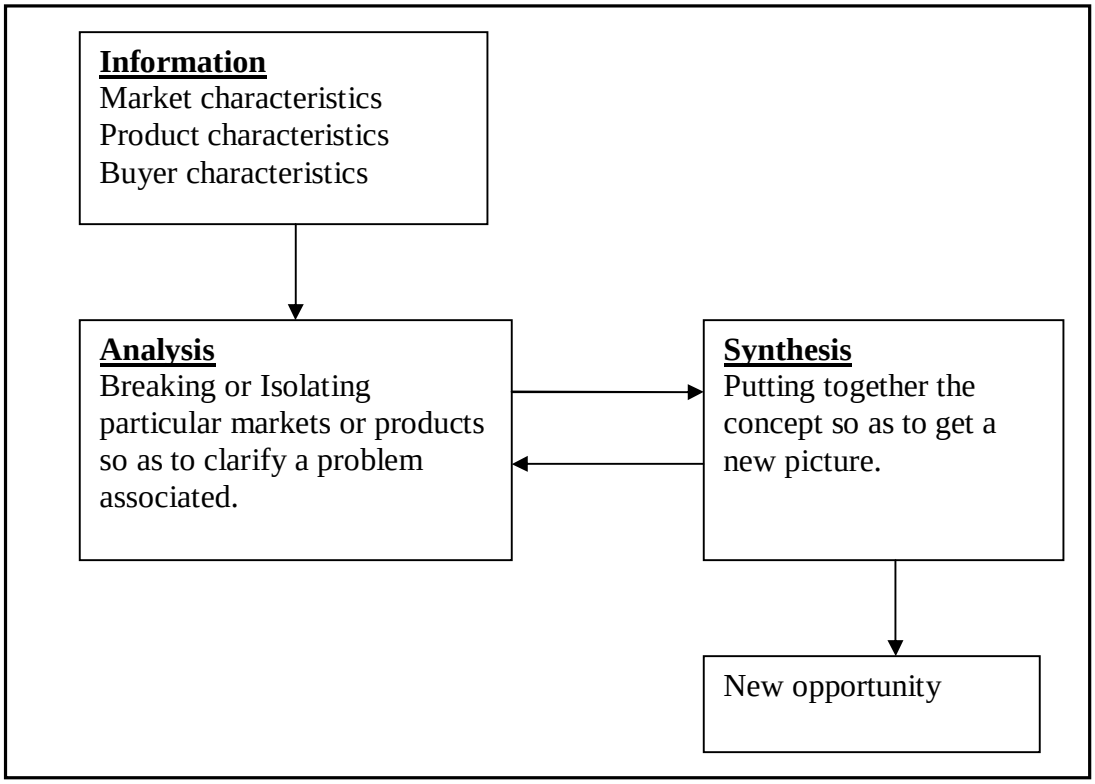
**d. Strategic Window I selecting ideas.**
It is a metaphor which is useful for generating a mental image which can guide the identification, analysis and exploitation of an opportunity. It is a notion that there is always a possibility of something being done better and it assumes that through which a new opportunity can be seen.

**There are five stages of the strategic window:**

- Seeing the Window.

This is the first stage in using the strategic window. It involves scanning the environment which is like a "solid wall" and trying to find out the windows which can help in identifying or spotting a possible gap. The gaps or opportunities may be in the areas of developing new products, new services, new methods of production, new distribution channels/routes etc. from existing business.

**a. Heuristic technique**
This is the most frequently used and it is a method of solving a problem by finding problem by finding practical ways of dealing with them. It involves gathering information, analysis of the market or product and the synthesis.




**Diagrammatic illustration of the Heuristic technique.**

**b. Problem Analysis**

This method begins with identification of the needs of individuals or Organizations and the kind of problems they are facing. Once the problem is identified, a question can be asked as for what can be done to improve or solve that problem. The solution will represent the new opportunity for an entrepreneur.

**c. Customer Proposals**

A new opportunity may be identified by customers recognizing. Their own needs and problems and they make proposals that can provide and opportunity for an entrepreneur.

**d. Feature stretching.**

This involves identifying the principle features which define a particular product or service and seeing what happens if they are altered e.g. of the size was made bigger, smaller, shorter, larger, etc, strength – harder to softer, speed – fast to slow.

**e. Product blending**

This refers to a method where new products are created by blending / combining together features from different products.

- **Locating the Window [competitive space]**

This involves developing an understanding of where or how the new venture will locate itself in the market place relative to others. This therefore requires the entrepreneur to relate the opportunity to the established businesses and identify a strategic position.

A strategic position is the way the business as a whole is located relative to the competitors in the market – (competitive space).

- **Measuring the window (Analysis of the opportunity)**

It involves analyzing or evaluating the opportunity and recognizing ther potential it offers. It means finding out how much the opportunity might be worth and this requires information about the size, impact of the opportunity and what risks are involved in taking up such an opportunity.

- **Opening the Window (commitment).**

After identifying, locating and measuring the window, the next stage is to open it. i.e. turning the ideas or opportunities into realities (the actual start of the new business venture). It also involves drawing the commitment of stakeholders towards the business i.e. creating relationships with investors, suppliers, employees and customers.

- **Closing the window (Sustaining Competition**).

This means giving the new venture some unique and variable character so that competitors cannot follow through the window and exploit that opportunity. It also implies that the entrepreneur must do something that is valuable for customers but which competitors find difficult to copy or match. This means that the entrepreneur should identify some sources such as lower costs, stronger relationship, flexible and responsive organizational structure.

**Processing the Idea.**

Once the business opportunities or ideas are discovered, screening or testing the ideas is done and the following are put into consideration:

- Technical Feasibility

This refers to the possibility of creating the product or service. This possibility is looked at in terms of the availability of technology, machinery and equipment, raw materials and stalls required.

- Commercial viability

Cost-benefit analysis is required to determine the profit – ability of the ideas. Once the entrepreneur is satisfied with the technical feasibility and commercial viability of the ideas then idea selection is carried out.

**Idea Selection.**

The idea selection is influenced by products or services whose demand exceeds their supply or products/services which are highly profitable or those which can be exported easily. The selection is also based on products whose incentives and subsidies are available.

**Assembling the necessary resources.**
Once the entrepreneur is convinced of the profitability of the product /service, there is need to assemble the necessary resources to launch the business. This may also involve choosing partners, collecting the required finances, acquiring land and buildings machinery etc.
Establishing and Managing the enterprise.

This concerns the decisions about the size and layout of the organization. It also involves determining the overall structure of the organization and the managerial levels with clear definitions of areas of authority and responsibilities for each position within the structure.

**BUYING OR STARTING A BUSINESS:**
A potential entrepreneur can either buy an existing business or start a new one. Each option has some advantages and disadvantages. When the potential entrepreneur decides to buy a business, there are many questions which he/she should ask and some of these include:

- Why do I want to buy this business?
- Why does the owner want to sell it?
- Does the business have a future where it is and the way it is operating?
- Do I have the skills to run this business?
- Will I be happy operating this business?
- Are you buying the name of the business and the right to use that name forever?
- Are you buying the stock, furniture and fittings?
- Are you getting the land and buildings as well?
- Are you paying for the present owner of the business not to set up a similar business nearby?

Advantages of buying a Business

- There are limited risks compared to starting a new one.
- There is an already established relationship with the customers and customers i.e. the name of the business is already in the market place.
- The cash flow of the business is already being generated.
- It has an established service or product i.e. inventory is already in place.
- It may already have trained employees thus reducing training costs.
- It may have a good location i.e. strategically located in terms of customers and suppliers.

Disadvantages of buying a Business

- The product or service may be in a declining stage / market.
- There is limited growth potential.
- Debtors or stock may be too high hence capital tied up.
- The merchandise may be obsolete needing to be disposed off to obtain new one.
- The business may have a bad reputation in the market.

- The location may be poor i.e. where there are no customers and the suppliers may be far from the business.

## STARTING A BUSINESS

Most people who want to be entrepreneurs think that the best approach is to start their own businesses and not buy one that already exists. This is because of the following advantages.

- There is greater personal freedom and hence flexibility.
- There is ability to enter a new market or introduce a new product.'
- You may incur lower costs at the start than when buying the existing one.
- There is ability to introduce changes in the business operations right from the beginning to see what should be included, modified etc.

Disadvantages of starting a business.

- Start up has high risks for establishing new business i.e. whether the business will stand or not.
- It requires significant personal involvement and business planning of the business is to succeed.
- The customers / markets may have to be found and developed and this is usually costly.
- Competition from established businesses may be high for the new business to cope up with.
- It may be difficult to fined t he finances for the start up.

## CHOICE OF LOCATION FOR THE BUSINESS

Selecting a business location is important for success and failure of the business. It varies from business to business thus the right location is very important for retail business and this may not be very important for manufacturing industries because their customers always locate them.

A decision should be made on the particular community i.e. literate or illiterate, young or old etc.

Select a particular spot with in that community to locate the businesses i.e. put into consideration the customers in terms of convenience for instance how easy is it for customers to come and access the products, is there parking space,, recreational facilities, etc.

- **The economic state of the community (Economic base)**

This may involve looking at the standard of living, average income of the community, level of employment among the members of the community and other businesses in that area.

- **Competition**

There is need to study the competition and collect information about their strengths and weaknesses, find out how many they are and their location.

Find out how many businesses similar to yours that have been newly opened or closed down and the reasons as to why they have closed down.

- **The type of the business.**

Businesses may take many forms but generally they can be categorized as retail, wholesale and manufacturing firms or service firms.

For retail firms, their location should depend on the traffic flow (human traffic) whereas for the wholesale firms, consideration is given to good transportation and distance from the source of raw materials. This depends on the kind of manufacturing firm. For service firms, they need to be located close to large shopping centers.

- **Operating costs at the site in terms of rent, water and power costs.**

## THE BUSINESS PLAN

### Overview

Before starting on the business plan, it is important to identify the different types of plans that may be part of any business operation. Plans may be short term or long, they also vary in scope from one type of business to another,

Although the plan may serve different functions, all the plans have one important purpose and that is to provide guidance and structure to management, especially in an changing market environment.

Preparing a business plan is a major step in starting and operating a successful business. A business plan can be looked at in different ways. i.e.;

- It is like a "road map" of how an entrepreneur is going to start and operate a business especially in t he first few years [3 – 5 years].
- It could also be a document which strikes out the goals and objectives of a business and clearly outlines how they will be achieved.
- It may also be referred to as a detailed action program outlining every activity of the proposed business venture.

It helps the entrepreneur to answer the questions such as:

- Where am I now? – Vision
- Where am I going? – Mission
- How do I get there? – Strategy
- Why should I get there? – Purpose

### Reasons for writing a Business plan (The scope and value of a Business plan).

A business plan may be written for a number of reasons and can be used by many people e.g. investors, employees, bankers, suppliers, customers, advisors, and consultants.
However, there are three perspectives that should be considered when preparing a business plan.

**a. The perspective of the entrepreneur.**

This is because the entrepreneur knows better about the new venture and must be precise to say what the business is all about.

**b. The Marketing perspective.**

Entrepreneurs must not only concentrate on the product but must consider their business through the "eyes" of their customers.

**c. The entrepreneur should also view the business through the "eyes" of the investors.**

The value of a business plan to the entrepreneur

- it is a guiding tool for opening and operating a business
- it is also a guide for managing a business
- it is a tool for monitoring performance
- it helps to attract customers if they see that the products being provided and their purpose is clearly stated.
- It helps and acts as a selling tool in the market.
- It can be a mode of communication between those businesses that need and those that have capital.
- It helps in negotiating for finances from financial institutions
- It enables investors to evaluate investments.

**CONTENTS OF A BUSINESS PLAN**

**1. Introductory page.**

This includes the following:

a. The name and address of the business.
b. Name(s) and address (es) of principles – this can be the entrepreneur and his/her management team if available.
c. The name of the business – is it going to provide services or manufacture products.
d. Statement of financing needed – this states the amount of money and the sources as initial capital.
e. Statement of confidentiality of report – this states who owns the business plan (entrepreneur himself) and who else is authorized to use the report e.g. copyrights.

## 2. Executive summary

This contains the summary of the whole business plan. It includes an overview of t he business, the nature of the business, source of financing, the marketing potential, distribution competences, the vision, mission and objectives of the business.

## 3. Industry Analysis

This gives the details of the industry in which the business is going to operate from i.e. the services or products to be manufactured.

This section includes:

a. Analysis of competitors – who are they, what is their size, what are there strength and weakness (carry out a SWOT) analysis).
b. Market segmentation – Are the customers to the business teenagers, school goers, adults or infants?
c. Industry forecasts – look at whether the business in which the business is to operate is growing or has potential for growth in future.
d. Future outlook and trends – this involves projecting the sales say 3-5 years, anticipated growth e.g. in terms of shares (5%) market share in a period of 5 years.

## 4. Description of the venture

This gives a detailed profile of the company, location, date of commencement and its history. It describes the form of business one is to deal in for instance a sole trader, partnership or a company. It also covers the products and services that the products and services that the business is t o provide to its customers (potential).

Other aspects included in the description of the venture are:

- Office equipment and personnel – what equipment will the business need as a manufacturing or service firm, how will these be acquired, is it through loaning? Can one include his/her close associates?
- Background of the entrepreneurs – what are your management skills like as a central person in there business, age, etc.
- Size of the business – how big is the business? Is it small, medium or large?

## 5. Production plan

In the production plan, the following are considered:

- The manufacturing process. ‘”will the business handle the whole process of manufacturing the products or it will do some subcontracting if so who ate the sub-contractors.
- Physical plant. – How and who will do the installation of the machinery and equipment and what arte the costs of doing it.

- Claimes of suppliers of raw materials – This describes the raw materials to be used in t he production process their sources and the suppliers.

## 6. Marketing plan

This includes:

- Pricing - state the strategy to be using in marketing the products or services. It involves analyzing whether the market is low or high at the start, whether their is a possibility of making profits or breaking even, whether their is need to give discounts, looking closely at the competitors strategy _(ies) can enable the entrepreneur come up with a good marketing plan.

- Distribution - This involves describing how the business will distribute its products. – will it be locally, regional basis, national or international basis. State the distribution channels and means.

- Promotion - This involves describing the promotional tools the business is to employ when selling/ marketing its products or services. Will the business inform its customers about its products through the media e.g.- newspapers, magazines, TVs or over radio stations? The choice of a promotional tool will depend on its efficiency in terms of costs and accessibility to people.

- Product Forecast.

This involves describing the product in detail and relevant. It will be to the customers compared to the products of the competitors to the business. The relevancy could be in terms of quality, price, durability, reliability etc.

- Controls - This involves describing what will be done or put in place to minimize the costs, how distribution will be controlled so t hat customers are not confused in other words, how will the four Ps be controlled i.e. Product, Place, Promotion, and Pricing

## 7. Organizational plan.

This outlines clear roles and responsibilities of employees and other stakeholders of the business. It involves an outline of the methods pf acquiring employees, how they will be places, trained and motivated. It also addresses aspects such as:

- Form of ownership – Is the business a public or private entity (joint venture, sole proprietor, etc).
- Identification of partners or principal shareholders.
- Authority of principals and their responsibilities.
- Management – team background – their names and a brief background i.e. educational level, experience and skills possessed.
- Roles and responsibilities of members of the organization – the organizational structure is important.

## 8. Financial Plan

It includes:

- Proforma income statement. This is a projected income statement estimates of sales, revenue expected over 3 years and the direct /indirect expenses the entrepreneur is likely to incur, projected profits and losses one is likely to incur in 3 years.
- Cash flow projections i.e. what one is likely to bring in and out as the business operates in a period of 3 years.

- Proforma balance sheet.
- Assts and liabilities of the business.

Break – even analysis.

This involves projecting what level of sales will cover the expenses incurred by the business.

### 9. Appendix

This contains backup material and it may not be included in the business plan but the information their in is important.

The Appendix includes

- letters
- market research data
- lease or contracts
- Price lists from suppliers.

## INTRAPRENEURSHIP (CORPORATE ENTREPRENEURSHIP)

Corporate entrepreneurship is a type of entrepreneurship within an existing business structure. It is one method for stimulating and capitalizing on individual creativity within an organization.

Advantages of intrapreneurship

- It is built on an existing structure
- Organizational resources can be used.
- Different activities and tasks can e accomplished by organization employees.

Differences between Entrepreneurship and Intrapreneurship are corporately undertaken.

Entrepreneurs have to exercise personal responsibility while for intrapreneurship responsibility is impersonal. It is a collective responsibility i.e. shared by all members.

Entrepreneurship assumes personal risk and profits whereas in Intrapreneurship there is no assumption of personal risk and profit.

Entrepreneurship involves direct investment of resources while under Intrapreneurship there is indirect investment. The resources are obtained from various sources.

The entrepreneur is motivated by the profits from the business while Intrapreneurship is not motivated by money or profits but the vision or something of value to the organization.

## CONDITIONS FOR ESTABLISHING INTRAPRENEURSHIP IN ORGANISATIONS:

1 Secure a commitment to Intrapreneurship in the organization by the top management. Once the top management is committed to Intrapreneurship. The concept can be introduced throughout the organization and once the concept is clear and accepted by everybody, there is need to identify leaders who should be trained about the vision, mission and value of the Intrapreneurship.
2 Identify ideas and general areas that top management is interested in supporting. The target results of each Intrapreneur venture should be established.
3 Determine the company needs for technology to make it more flexible and responsive to changes.
4 Training needs for interested managers so as to establish a firm intrapreneurial culture must be identified and met and this must be done so that the team learns haw to co-exist within the organizational structure.
5 The Organization needs to develop ways of getting closer to customers so that innovations can be made to respond to their changing needs.
6 The Organization needs to establish a strong support structure for Intrapreneurship. This is because Intrapreneurship is a secondary activity that not everybody in the organization will understand.
7 It should be able to tie rewards to the performance of the Intrapreneurship Unit in order to motivate workers to work harder and to avoid members from starting independent and parallel ventures.
8 Establish an evaluation and monitoring system that allows a successful Intrapreneurial unit to expand and the unsuccessful ones to be eliminated.

## THE IMPORTANCE OF INTRAPRENEURSHIP

Intrapreneurship appears to be a new concept to many people just like the concept of Entrepreneurship. Much as it is an emerging concept, most organizations attach some importance to it for the following reasons:

1. It enables an organization achieve a competitive edge over her competitors. This is because the world is changing faster than eyes before especially changes in technology, new discoveries, demand etc, organizations find it harder to survive by merely competing and as a result they look towards

Intrapreneurship as a means of taking them beyond competition by creating new businesses in new markets.

2. On the other hand employee loyalty is diminishing i.e. employees are no longer tied to one organization but they change from time to time. Employees who feel that their ideas can be bought by another company will always leave so organizations must encourage creatively within they are to survive.

## CLASSIFICATION OF INTRAPRENEURSHIP

Hans Scholl hammer provides five classifications of corporate intrapreneurship.

1. Administrative Intrapreneurship.

This is where the organization purposely encourages greater innovation and commercial development of new ventures committing organizational resources for research and development for the purpose of innovations.

2. Opportunistic Intrapreneurship

This is where creative members of the organization are given freedom to pursue opportunities for the organization and individual benefits by exploiting external markets. It is also where large firms take advantage of commercializing ideas generated else where by smaller firms or some individuals especially where they lack resources to implement their ideas.

3. Acquisitive Intrapreneurship.

This is where one organization takes over another company through absorption or mergers etc.

4. Irritative Intrapreneurship:

This is where large companies set up individual espionage / spy to study the product, technology and processes/activities of other companies, and they modify and imitate those companies.

5. Incubative Intrapreneurship

This refers to an intensive in-house effort to establish new methods of innovation where ideas are received from members of the organization and the ideas are developed slowly until it reaches implementation stage by the organization.

## CORPORATE NEW VENTRES CREATION

It describes ways in which new ventures evolve in an organization. There are basically two ways of evolving new ventures:

1. The Spontaneous Ventures (Venture Team)

This results from the informal relationships among members of the organization who work together on new ideas. Still under the spontaneous technique of new venture creation, there are four stages of development or team building.

a. Solo stage/phase.

This is where an individual generates and nurtures creative ideas which can be turned into feasible innovation.

b. Network Stage

This is where an innovator seeks advice and support from colleagues to develop the idea.

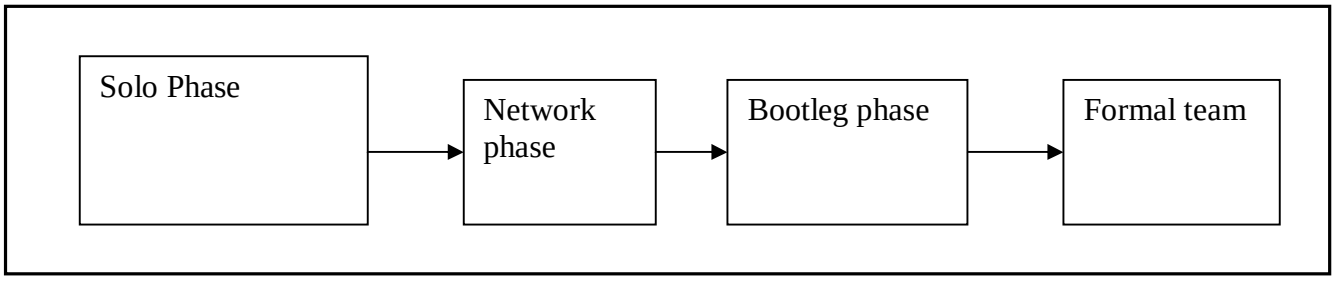
c. Bootleg Stage.

This is where members of the organization work informally as a team and propose ideas as a team to the organization for formal development and support

d. Formal team stage

It is where the company is fully informed of the ideas or business plan and also this is a stage where the team gains corporate support and provides a budget and the mandate for the team to pursue their ideas (the activity is legalized).

**Diagrammatic expression.**




2. The Formal venture Team.

This refers to deliberate encouragement of team building for the purpose of innovation. There are three stages in the formal venture creation i.e.

a. The Initiation stage.

This is where members of the organization or innovators generate ideas and they form adhoc committees to generate and develop preliminary models and write a draft, a proposal and pass it to the management of the organization for review. If it is approved, they move to the next stage.

b. Feasibility development stage.

Once the idea has been supported the team prepares a budget and a feasibility plan with detailed information and it is forwarded to the committee for another review. Once the plan is approved, the organization proceeds to stage (c )

c. Implementation stage.

This is where the project is introduced to the entire organization and it is transferred to the cooperate management for further development, further research and transfer of technology.

## WHAT RETARDS INTRAPRENEURSHIP

1. The cost of failure Vs the rewards for success. The cost of failure is high while the reward for success is too low (low bonus) and since the reward is low and yet the cost of failure is high, members of the organization may relax.

2. Inertia caused by established systems or structures that no one is willing to change i.e. most organizations are governed by implicit or explicit systems and in many cases people are reluctant to change. Many organizations use their existing systems to show that they already have the right answer at the expenses of creating.

3. Hierarchy

Organizational hierarchies may create a need to ask for permission before something can start. The deeper the hierarchy the harder it is to get permission for anything new. People lower down the hierarchy become powerless and less creative or innovative.

4. Ownership which can either be public or private.

Usually public organizations called public ownership limit the workers' tendency to be creative /innovative. On the other hand private ownership encourages workers to be more innovative.

## FINANCING NEW VENTURES

Sources of finances:

a. Equity financing: Here owners provide finances by exchanging ownership for capital sources of equity finances may include.

- Personal savings in terms of assets, money or cash
- Family members and friends through collective effort.
- Partners - these may be other persons with whom you share common ideas not necessary family members or friends.

Advantages of each source include:

- Personal savings equity implies that all the profits belong to the individual.
- With personal savings, the burden of debts is reduced

- It shows good faith to any potential lender since the entrepreneur already has something at hand to start with.

However this source is associated with the following disadvantages.

- It requires personal sacrifices which means postponing consumption
- All the losses are suffered by the owners of the business.

Family and friends (Advantages)

More cash is available for the business
There is ability to borrow more
There is a possibility of sharing any financial risks that may occur.

However, it is associates with disadvantages such as:

- One may have to give up part of the profile to the family members and friends since they also contributed towards the business.
- Disputes may arise among family members and friends as a result of unproportional sharing.

Advantages of partnership

- It is one of the easiest sources of cash
- There is a possibility of having less pressures of work because responsibilities can be shared amongst members.

Disadvantages of partnerships

- There is a risk of destroying personal relationships with individual customers.
- Misunderstandings may arise among partners if the agreement is not followed critically.
- It may lead to slow decision making because of the need for consultations among partners before deciding on anything.

b. Debt Financing /Credit financing/Asset based financing.

This refers to accounting a loan which means collateral security must be provided in order to acquire a loan. Collateral security can include either fixed or current assets.
Some interest is charged on the borrowed money which is considered as the cost of borrowing. When equity sources of financing are not adequate, the entrepreneur has the option of borrowing from other sources which is referred to as debt financing.

Advantages associated with debt financing.

- The entrepreneur maintains control and ownership of the business without bringing in the lender's ownership.
- The entrepreneurship may pay at more convenient intervals.

- It forces the entrepreneur to save money in preparation for the repayment of the borrowed funds.
- It is advantageous at the time of inflation in that the entrepreneur may repay at cheaper currencies. However, this source of financing as associated with some advantages such as:
- The lender imposing restrictions on the borrower.
- It is easy to abuse and overuse. Lenders are careful not to lend money if the risk is too high. Most lenders therefore will review the business plan carefully.

**FACTORS CONSIDERED BEFORE EXNTENDING A LOAN**

Different lending institutions have different aspects put into consideration before extending a loan to the applicant. They include:

- The type of the loan – is it long, medium or short term.
- The purpose of the loam – most lenders do not want to loan to illegal business.
- Credit history / worthiness – can the borrower be trusted. This is revealed by the bank's records and suppliers to the borrower.
- The capability of the entrepreneur – they look at the business profile of the applicant i.e. as revealed by the cash flow statements.
- The re-payment period – this is important to both the borrower and the lender.
- Security – what kind of collateral property covering the property of the company/entrepreneur. This is known as a secured loan.
- Guarantors – these could be from friends, employers or reputable persons whose opinions is reliable.
- Economic conditions, political atmosphere and its stability together with ´government policy.

**FINANCING SMALL BUSINESSES**

Money, capital or cash is very important and one cannot start or run a business without it. However, raising the money one needs can be a complicated and frustrating experience. Very few entrepreneurs know that there is plenty of investment money out there if one knows where to look. One will discover a variety of sources of financing from banks and micro finance companies.

**Venture Capital**

A business' ability to raise finance can often make or break it. This can be an especially testing time in the life cycle of the business as raising finance can sometimes be a stumbling block for many business owners.

While there may be a number of options available, often the more traditional methods such as bank loans just do not meet the needs of some businesses. And therefore the answer for such businesses can lie with venture capital.

Venture capital works well with businesses that possess real growth prospects coupled with skilled, ambitious management.

Venture capital can be defined as a financial investment into one Business Company from an independent outside source such as another company, firm or specialized venture capital fund.

It defers from more traditional finance sources such as banks or lending institutions because venture capitalists arte in the market to take more calculated risks when it comes to their investments.

In return for taking such risks, venture capitalists require a higher rate of return ob their investment. This means depending on the individual business arrangement, that the venture capitalist will effectively become a partner in your business requiring financial compensation in the form of profits and or shares.

Securing investment from a venture capital firm means entering into business partnership and the venture capitalist is ready to also share in the risks and rewards of the business he has invested in.

They promote growth in the businesses and companies they invest in. This is because they eventually sell their shares in the business or company which can be three – seven (3-7) years after the investment.

Each firm will have a different approach to tits investments some may look for business that are in the 3 start-up phase or that need capital to manufacture a new product while others may look to invest in expanding companies or those which specialize in a particular industry.

It is therefore important to do research to make sure the venture capitalist approached is likely to be interested in your proposal.

Considerations when raising venture capital.

Raising any type of capital needs research and strategic planning before approaching any source one needs to have:

- A good business plan with an executive summary.
- Assessed that private equity is suitable the business.
- Analyzed how much finance is needed and what it will be used for.
- Identifies those finance sources that meet his/her requirements.

One may need to ask him/herself questions like the following when it comes to venture capital:

a. Do you have the high growth ambitions for your company?
b. Are you willing to sell some of your shares to a venture capital investor in order to be able to increase your stake's value to more than that of your original holding within a few years?

The entrepreneur should then draw up a short list of potential venture capitalists and then contact the venture capital firm and request of investments they favor.

Advantages of Venture Capital financing:

- The venture capitalist can provide long-term finance which can be a solid base for business growth. Depending on your arrangement, the venture capitalist may also be willing to provide an additional funding boost when required for financial advice.
- In essence a venture capitalist is a business partner who is sharing the risks and obviously the rewards.
- The venture capitalist can also be a mentor for the business or company in which he/she has invested by providing strategic operational and financial advice.
- One can also take advantage of the network of contacts the venture capitalist has. This can add value to the business in dealing with suppliers, manufacturers, retailers etc. It can also be beneficial when looking for co-investment.
- The venture capitalist is also experienced in the process of preparing a company for initial public offering (if required) and helping in trade negotiations and sales.

**GOING PUBLIC**

This refers to a private company's action of making an initial public offer (IPO) thus becoming a publicly traded and owned entity. Businesses usually go public to raise capital in hopes of expanding.

Venture capitalists may use initial public offers (IPO) as an exit strategy that is a way of getting out of their investment in a company.
The IPO process begins with contacting an investment bank and making certain decisions such as the number and price of the shares that will be issued.

Investment banks take on the task of underwriting or becoming owners of shares and assuming legal responsibility for them. The goal of the underwriter is to sell the shares to the public more than what was paid to the original owner of the company.

Deals between investment banks and issuing companies can be valued at hundreds of millions of dollars some even hitting $1 billion.

Positive effects of going public.

- it strengthens the capital base – the business is able to borrow from financial institutions.
- Makes acquisition easier – Money lenders have confidence in transferring of company assets.
- Diversities ownership – Different people have different expertise hence efficiency.
- Increases prestige – Makes the entrepreneur more stable than when it is private.

Negative effects

- Puts pressure on short-term growth – this is because the public is usually concerned about the activities of the company.
- Increased costs – in form of dividends to shareholders.
- Imposes more restriction on management and on trading
- Makes former owners of the business to lose control over decision making in the company.

For some entrepreneurs, taking a company public is the ultimate dream and mark of success (usually because there is a large payout). However, before an initial public offer can be discussed, a company must meet requirements laid out by the underwriters.

Characteristics that may quality a company of an initial public offer.

- High growth prospects
- Innovative product or service
- Competitive in the industry.
- Able to meet financial audit requirements
- Revenues of approximately $10-20 million per year with $1million profits.
- Management teams should show future growth of about 25%per year in a 5-7 years span.

The process of Going public / Flotation

When a company decides to list its shares on a stock market. It has to go through an elaborate process before its shares become quoted i.e.

- The company publishes a prospectus describing its business who its directors are, what its financial position is and what profits it thinks it is going to make. The information it includes has to conform to strict guidelines so that potential investors are not misled.
- The prospectus announces the issue of new shares sets an offer price for the shares and invites subscriptions. In some cases a company will not actually set a price for its shares but will have an “offer by tender “ effectively an auction in which investors bid for shares.
- In a flotation, a company raises money by issuing new shares in what is known as the ‘primary market’. Once the shares are listed, further trading in them occurs in the secondary market – secondary in a sense that it is a second stage market between investors that does not involve the company itself.

Strategies for Going Public

Going Public represents a significant milestone for any company. The Initial Public Offer (IPO) market grew more than 200% in 2004. With all its rewards however, an IPO is complicated and time consuming. It involves a high degree of risk and requires an extraordinary level of management commitment.

A Summary of what to consider in Going Public.

- Should you Go public? Public ownership offers significant benefits to a company and its shareholders but also has disadvantages. Therefore the pros and cons and alternatives must be weighed when making a decision.
- Timing: Evaluating your company's appeal to investors and the state of the market is important in deciding whether to Go Public. A business plan will enable you to move quickly and seize market opportunities.
- Your team: Specialized professionals are required for taking a company Public. There is need to identify who you need and offer brief overviews of their participation.
- Pre-Public planning: This deals with steps that must be taken to prepare a company for a public offering. It also provides insight into the roles of your management attorneys, accountants and financial public relations firms.
- The Underwriters: Competent underwriters are critical to the success of your public offering. The criteria for selecting underwriters and also the criteria underwriters use for deciding whether they want to take the company public should be understood. The factors they consider when pricing your stock should he clear.
- Registration: Every member i.e. the entrepreneur, the underwriters, the attorneys, accountants will be involved in registering the company with the Securities and Exchange Commission.
- The waiting period: The actual selling efforts occur during the weeks immediately preceding the effective date of your registration statement. You should be aware of the rules governing what you can and cannot do and say during this period and what your involvement is in the selling effort.
- Closing the deal: When your registration statement is effective, the remaining events in the process occur quickly.
- After you go public: When the offering is complete, looks ahead to responsibilities as a leader of a public company especially your relationship with the financial community, reporting requirements and several securities laws.

Criteria for Evaluating Loan Sources:

The cost: What are the benefits of getting a loan in relation to the costs. This cost is in terms of the interest rate or cost of borrowing. The cost of a loan is usually measured by its impact on the earnings of the business.

Flexibility of the loan source: Will the conditions imposed by a loan source reduce flexibility in seeking for other capital? Can there be possibility of seeking for other alternatives? The more the flexibility of the loan source, the source.

Control: How does the loan affect the owner's control over the business? If the source of the loan prevents the entrepreneur from controlling the business does it allow the entrepreneur to make operating decisions or not?

Risks to which the business is exposed as a result of the loan. This refers to the conditions which are attached to the loan in case one fails to pay back. E.g. taking over the ownership of the business or selling it off. Usually the best option is to go for sources with lower risks.

The lending experience of the source especially with small business enterprise. Does the source have a good reputation for dealing with small scale businesses or they are harsh and unreliable.

Are there some special requirements for the lender for instance opening an account with a specific bank before obtaining the loan and should this account be opened with a specific minimum amount, procedures to follow for instance documentation about the client, the maximum amount to be obtained might be dictated.

**FRANCHISING**

Taking on a Franchise is an option worth considering for anyone who wants to run a business but does not have a specific business idea or prefers the security provided by an established business.

The word Franchising comes from the French word 'Franchir' which means 'free' originally it meant to free from "slavery". Today it has several other meanings: One of the acceptable meanings is that.

It is an arrangement whereby the manufacturer or distributor of a product or provides of services gives exclusive rights of local distribution to independent retailers in return for payment and conformance to standardized operation procedures.

This is common in the automobile, beverages, book and electronic industries.

A franchise is a form of business ownership created by **Contract** whereby a company (Franchisor) grants to a buyer (Franchisee) the rights to engage in selling or distributing its product(s) or services under a prescribed business format in exchange for royalties or shares of profits.

Advantages of franchising

- Your business is based on a proven idea. You can check how successful other franchises are before committing yourself.
- You can use a recognized name and trademarks. You benefit from advertising or promotion by the owner of the franchise.
- The franchisor gives you support – usually including training, help setting up the business: a manual telling you how to run the business and ongoing advice.
- You usually have exclusive rights in your territory. The franchisor will not sell any other franchises in the same region, though there will be competition from other businesses.
- Financing the business may be easier. Banks are sometimes more likely to lend money to a franchise with a good reputation.
- Risk is reduced and is shared with the franchisor.
- You have an existing customer base and do not have to invest time looking to set up one. Customers will always buy the product because they are already aware.
- Relationships with suppliers have already been established.

Disadvantages of franchising.

- Costs may be higher than you expect . in addition to the initial costs of buying the franchise, you may continue to pay royalties and you may have to agree to buy products from the franchisor.
- The franchise agreement usually includes restrictions on how you run the business. You might not be able to make changes to suit your local market or environment.
- Other franchisees could give the brand a bad reputation and eventually affect sales.
- You may find it difficult to sell your franchise – you can only sell it to someone approved by the franchisor and may not be easy.
- Reduced risk means you might not guarantee vastprofits.

Questions to ask before buying a franchise.

- What is the business and how does it operate? There is need for a better understanding of a business before taking it up.
- How long has the franchisor or company offering the franchise in business? This is because the longer they have been in business the larger the customer base.
- Is there a strong demand for the franchisor's products or services?
- What is the strength of competition from other businesses? Competition should be minimal to allow fast growth and expansion.
- Is the location of the franchise convenient? Can the customers and suppliers locate you easily without difficulty?
- Will the franchise company provide you with everything you need to be successful e.g. equipment for storage etc.
- Will you be happy with the restrictions imposed by the franchise arrangement? This is because these restrictions can have an impact on the morale of the workers and even the managers' flexibility.
- Can you afford the franchise fee? It should not stress you financially because you might take long to recover it.

Key things to consider when planning to purchase a Franchise (The Dos)

- Assess yourself to see what kind of franchise if any will suit you.
- Find out what franchises are available.
- Do your own market research into customers and competitors in your area.
- If you will need to raise bank finance, ask your bank if it will need consider a loan for the type of franchise you are considering.
- Draw up a business plan – indicate other strategies to enable you succeed.
- Check the franchise agreement and get professional advice.

Areas covered by a typical agreement are:

- **The term:** How long does the franchise last? Can it be renewed and on what terms?
- **Territory:** What area does your franchise cover, and do you have exclusive rights to sell within it?

- **Fees:** What initial fee will you pay? What royalties will you pay on sales? Will you have to pay other costs and how are they worked out?
- **Support:** How much help will you get purchasing the franchise? What continuing support will you get?

- **Restrictions:** What restrictions are there on what you are allowed to do and how you must run the business?

- **Exit:** What happens if you cannot continue in the business for some reason? Perhaps due to ill health? And what happens if you want to sell your franchise.

**The Disadvantages**:

It is advisable to make sure you don't:

- Take up the first opportunity before investigating alternatives this is because there could be better alternatives.
- Allow yourself to be hurried into making a decision – first think and analyze the situation.
- Pay any non-refundable deposit.
- Commit yourself before you are completely satisfied i.e. getting into the agreement.
- Assume that a franchise will automatically give you customers or assume that it will work in your area just because it works elsewhere.
- Rely on the forecasts provided by the company selling you the franchise.
- Sign any agreement without legal advice.

**Social Entrepreneurship: Not Just Charity**

Social Entrepreneurship cannot be confused with charity. While charity reflects the benefactor's compassion for humankind and is measured in terms of the generosity of donations to the less fortunate, social entrepreneurship reflects more than the good intentions of its practitioners, who are not merely driven by compassion, but are also compelled by a desire for social change. Oftentimes, charitable organizations survive at the mercy of their donors whose contributions vary with the economic climate. A nonprofit that practices social entrepreneurship, on the other hand, relies less heavily on donor funds because it creates social programs that are meant to be self-sustaining. Social entrepreneurs manage donor contributions in an effective manner, investing in social ventures which can then generate their own revenues to sustain themselves.

In other words, while charity uses donor funds to buy food to ease the poor's hunger, albeit only temporarily, social entrepreneurship uses its funds to make a lasting social impact, creating instructional programs that teach the poor how to grow their own food so that they can take care of themselves in the long run. In a world of scarce resources, it is no longer enough to simply donate out of good intentions. Rather, Greg Dees emphasizes the need for people to value the social impact that their donations are actually having:

"In society, I'd like to see more value placed on social impact and success than on good intentions or effective marketing or the severity of the need you're claiming to serve. I'd like to see a fundamental change in ethics or culture around that. We still have the lingering effect of a culture of charity, which honors people for their sacrifice—how much they give and the purity of their motives. The word charity comes from the word "caritas," which is Latin for love or compassion. We're rewarding people for demonstrating their love of humankind, but we're not often looking to see whether it has the intended impact. So I'd love to see an ethics change, so that we honor people for the impact they've had directly, or indirectly in choosing to support programs and organizations and individuals that have had impact, not just for how much they give or how generous they are."

Moreover, social entrepreneurs have to identify opportunities that have the potential to change the world. In the words of Martin J Fisher & Kevin Starr, the authors of Real Good, Not Feel Good:

"We can no longer afford to spend scarce funds on things that simply feel good. Instead we need to support initiatives that do real good, and that have the potential to generate large-scale and lasting solutions to the world's biggest problems."

## Social Entrepreneurs as Engines of Innovation

Just as business entrepreneurs are willing to take risks and play around with ideas until they find one that works, social entrepreneurs must dare to innovate even if it means treading where no one has ventured before. Of course, not all social innovations are successful. But even so-called failures are usually blessings in disguise because they inform the social entrepeneurs what to avoid in a future enterprise. Since social entrepreneuers work in a variety of different social contexts throughout their career, with each new situation demanding a different approach or even a different solution, they must be flexible in the way they think and approach problems.

## Innovation – A Tool to Better the Whole Society

There is no doubt that innovation plays a vital role in any entrepreneurial enterprise. While the ability to generate innovative ideas is important, this alone cannot make the social entrepeneur successful. Many people can think creatively and generate a lot of ideas, but many tend to rest on their laurels once their own problems are solved. According to William Drayton, the social entrepreneur effects a paradigm shift in the whole society:

"There are many creative, altruistic, ethically good people with innovative ideas. However, only one in many thousands of such good people also has the entrepreneurial quality necessary to engineer large-scale systemic social change. Entrepreneurial quality also does not mean the ability to lead, to administer, or to get things done; there are millions of people who can do these things. Instead, it refers to someone who has a very special trait -- someone who, in the core of her/his

personality, absolutely must change an important pattern across his/her whole society. Exceedingly few people have this driving motivation. Most scholars and artists come to rest when they express an idea; many managers relax when they solve the problem of only their company or institution; and most professionals are happy when they satisfy a client. It is only the entrepreneur who literally cannot stop until he or she has changed the whole society."

## A Case in Point: Andrew Carnegie & the Birth of the Library System

"Imagine that Andrew Carnegie had built only one library rather than conceiving the public library system that today serves untold millions of American citizens. Carnegie's single library would have clearly benefited the community it served. But it was his vision of an entire system of libraries creating a permanent new equilibrium – one ensuring access to information and knowledge for all the nation's citizens - that anchors his reputation as a social entrepreneur." – Roger L. Martin & Sally Osberg in the Stanford Innovation Review

## Social Entrepreneurial and Eye Care

Unite For Sight supports eye clinics worldwide by investing human and financial resources in their social ventures to eliminate patient barriers to eye care. The village and slum communities where Unite For Sight and the eye clinic partners now work had not previously had access to eye care due to many patient barriers. Unite For Sight's model enables the local ophthamlologists to create real change and a sustainable impact for those living in extreme poverty. With Unite For Sight's support, the local ophthalmologists develop and lead eye care programs that provide high quality, cost-effective care to the world's poorest people.

Unite For Sight's programs are sustainable because emphasis is placed on nurturing and developing local potentialities so that eye clinics can meet local eye care needs on a long-term basis. Unite For Sight provides the necessary support to cultivate leadership, talent and ideas among its eye clinic partners. Not only are eye care programs led by local staff, but local volunteers are also trained to serve as support staff at local eye clinics. To nurture local talent, visiting specialist volunteers, such as ophthalmologists, optometrists and ophthalmic nurses, provide training to local specialists. Unite For Sight's model is able to significantly increase the number of surgeries provided by local eye clinics annually. For more information, visit http://www.africapopulation.net

Unite For Sight works with partner eye clinics to provide local solutions, identifying, and overcoming community-specific barriers to effective healthcare delivery, such as transportation and communication. Patients are transported to and from the eye clinic. Moreover, local community leaders and members are involved in outreach activities, raising awareness and providing education regarding eye care to those who would otherwise not have access to eye care. Unite For Sight's model has been employed successfully in a variety of different social contexts in Ghana, Honduras and India.

## The Social Venture – A Success or a Failure?

The primary indicator of success lies in the actual impact of the social initiative. To put it simply, a social venture is successful if it achieves its intended social impact.

## Capturing the Impact – The Mission Statement

The social entrepreneur should state the intended social impact in a brief and specific mission statement. For example, "poor families will earn more money" or "fewer people will get, and/or die of, malaria." Statements like "fighting poverty and injustice" or "improving lives" are simply too vague to be useful.

## Measuring the Impact & Establishing a Correlation

The social entrepreneur can now assess whether the social program actually measures up to the mission statement. To measure impact, one has to gather concrete statistical data. For instance, if the mission statement is "poor families will earn more money," then the income data of these families before and after the intervention should be collected and analyzed. The impact can then be quantitatively measured. Of course, owing to the sometimes varied and complex nature of the impact, it is often up to the social entrepreneur to find a suitable metric that can capture results with integrity.

However, it is insufficient to simply measure the impact.. More importantly, the social entrepreneur must prove that the social programs are indeed the interventions responsible for producing the desired changes. For this purpose, scientific randomized trials involving control groups could be done to study the correlation between a particular social initiative and the perceived social changes. Otherwise, one could rely on the past studies of similar programs in similar contexts conducted by other social entrepreneurs or researchers. The social entrepreneur must provide concrete evidence to justify the efficacy of the social endeavors. According to Fisher & Starr,

"A project working to reduce the incidence of malaria by distributing mosquito bed nets must demonstrate that the incidence of malaria is in fact reduced. It is not enough to simply report on the number of nets distributed - the link to impact may not be there. Nets can be improperly used, sold by the beneficiaries for quick cash, or even used as fishing nets. Simply tracking activities is not enough - you need to track the impacts of those activities...A project that aims to reduce poverty by helping poor people to start businesses needs to show that the participants earn significantly more net-income after the intervention than they did before it. Business training or access to credit may not in fact get people out of poverty—measuring incomes is the only way to know."

## Cost-Effectiveness

Funding for philanthropic purposes can be extremely limited. As such, it is important to keep track of the amount of donor funds required to produce a given

impact. For example, for every dollar spent in a poverty reduction program, by how much do the incomes of the people rise? The social entrepreneur must strive to be cost-effective, optimizing every dollar to produce the greatest benefit for the beneficiary. The programs should also be evaluated to determine if the programs are going to be cost-effective over time, in the future. Fisher and Starr also offer additional advice: “Cost-effectiveness is relative, so compare the project to other projects working to produce the same impacts in similar areas. If you have nothing to compare it to, then at least ensure that the effectiveness can be measured and that it feels reasonable to you.”

## Sustainability in the Long Run

A crucial question is whether the social initiative would be sustainable in the long run. What would happen to the program once the inflow of external funding stops? In an effective program, the initial positive impact should not fade away, but should continue to generate benefits even with scarce, decreasing funding. Fisher and Starr urge social entrepreneurs to continually ask the following questions:

“Will the people who are given mosquito nets continue to use them? Will the nets continue to be effective? Will they get replacement nets? Will new people want, and be able to get, nets?... Will the businesses that people have started continue to prosper? Will new people be able to start new profitable businesses?”

According to Fisher and Starr, in order to have sustainable impact, a social program should have one or more of the following characteristics:

> “The project can leave in place a business model and supply chain, which will continue to provide the required goods and services at a profit.”
>
> “The project can hand-over the provision of goods or services to the local government – which will fund the continued interventions by collecting taxes.” Though this is a viable option, it is unfortunately not always sustainable to rely on the government.
>
> “The project can leave in place a self-sustaining community process to provide a solution to a local problem with no external source of funding.”
>
> "Finally, a project can work to permanently eliminate the problem it is trying to solve. Either it can get rid of the problem itself, or it can permanently change a no-cost social behavior…”

## A Case in Point: The Grameen Bank, A Model of Sustainability

Muhammad Yunus, the founder of the Grameen Bank and winner of the 2006 Nobel Peace Prize, found a solution to the plight of poor Bangladeshis who are unable to acquire funds to start their own business – microcredit. He lent $27 of his personal funds to a group of poor women, who quickly started a sewing business that was able to generate enough income to help them pay back the loan, and more importantly, to rise above poverty. Thus the idea of the Grameen Bank was born. According to Martin & Osberg, “Grameen Bank sustained itself by charging interest on its loans and then recycling the capital to help other women.” Having thus proven

microcredit to be a sustainable method of combating global poverty, Yunus continues to inspire organizations worldwide to adopt the Grameen model to combat poverty in their own communities.

## Learning Outcomes: Sharing Knowledge With Other Social Entrepreneurs

After assessing the impact of a social venture, the social entrepreneur will know whether it is successful or not. Successes and failures are equally important because the social entrepreneur draws valuable lessons from both. More importantly, the social entrepreneur also shares knowledge of what works and what doesn't with other social entrepreneurs to help them achieve progress in their respective social projects.

## Learning Outcomes: Scaling & Replicating The Impact Elsewhere

According to Fisher & Starr, "developing successful models for social change is expensive and we can't afford to reinvent the wheel every time." The best projects are normally those that, with a few minor modifications, can be rescaled and replicated in a variety of different social contexts to address a similar problem. The Grameen model of poverty reduction is successful not only because it is sustainable and cost-effective, but also because it can readily be adapted to serve the needs of different communities with different sets of cultural and social needs. In fact, so successful is microfinance that it is now even being implemented in developed countries like the United States to reduce poverty.

## An Emerging Trend: Social Venture Investors

While venture capital was predominantly invested in such industries as semiconductors, biotechnology, and the internet in the past, venture investors today are increasingly attracted to small business models that, in addition to their potential to earn attractive financial returns, could yield social benefits. Many venture investors increasingly recognize that there is no need for a tradeoff between earning profits and delivering a social mission. Already many industries, such as clean energy and organic foods, are getting investors' attention, and their 'patient' capital.

"There's more attention in this space, and with attention, more investors want to participate... it becomes less a fringe and more acceptable. In a few years it'll be closer to mainstream." - Deb Parsons, business development director at Investors' Circle

## What is 'Patient' Capital?

"Patient capital is another name for long-term capital. With patient capital, the investor or backer is willing to make some type of investment in a business with no

expectation of turning a quick profit. Instead, the investor is willing to defer any return for an extended period of time."

Patient capital is revolutionizing the concept of philanthropy. Social entrepreneurs are no longer content with traditional philanthropy – which is normally the giving of direct, temporary aid to relieve poverty – as the best way to alleviate poverty. Patient capital allows social entrepreneurs to bring their business acumen to bear on social issues. By combining patient capital with their talent and knowledge, social entrepreneurs strive to perfect the correct models for delivering basic goods and services, such as housing, healthcare, energy and clean water, to the underserved market of the poor in the most effective and efficient ways.

Patient capital is based on the philosophy that everyone should have access to basic goods and services. It targets the poor consumers.

## 'Patient' Capital as a Poverty-Reduction Tool

"People grow out of poverty when they create small businesses that employ their neighbors. Nothing else lasts." - Thomas L. Friedman

Moreover, according to Friedman, many people do not aspire to become entrepreneurs because they would rather be followers of certain risk-taking leaders and innovators. As such, patient capital must be made available to these would-be capitalists to initiate their own businesses which could in turn benefit others.

Patient capital can also be used to increase the incomes of the poor sustainably. A case in point described by Friedman is the Kenyan company Advanced Bio-Extracts (ABE), a pharmaceutical company which produces an affordable, efficacious malaria treatment in a region where malaria still kills nearly a million Africans annually. ABE also designs contracts with small local farmers to grow the botanical ingredient for the drug, which helps them earn more income than just growing corn. This business model is funded using 'patient' capital from investors like Novartis and the Acumen Fund.

## The Significance of 'Patient Capital' in Improving Global Health

In developing countries, health services rendered by the private sector are often costly and unattainable. As such, patient capital could be invested in social enterprises that provide high quality medical care at a low cost to the poor.

Brief Case Study: The Acumen Fund

"People don't want handouts...They want to make their own decisions, to solve their own problems." – Jacqueline Novogratz

A former graduate of Stanford Business School and subsequently an international banker, Jacqueline Novogratz is now a social entrepreneur who is redefining the practice of philanthropy by tapping into her business foresight and skills to fight poverty in developing countries. She believes that traditional charity, which merely

gives aid, is no longer an adequate solution to the problem of poverty. Founding The Acumen Fund in 2001, Novogratz uses market-oriented approaches to tackle issues of poverty – by providing promising entrepreneurs, who bring the necessary good and services to communities who need them, with patient capital. Rather than distributing handouts like a traditional charity, The Acumen Fund invests in socially-conscientious companies whose target customers are the world's poor.

"From drip-irrigation systems in India to malaria-preventing bed nets in Tanzania to a low-cost mortgage program in Pakistan, Acumen's portfolio offers important case studies for entrepreneurial efforts aimed at the vastly underserved market of those making less than $4/day."

## Social Investing and Social Return on Investment

According to Social Economy Scotland, social investment is a form of investment that is "focused on the social return rather than the financial return. It is a relatively new term but is gaining common currency describing the type of investment organizations are looking for as they move away from grant aid."

## The Challenge: Procuring Social Investment

Because a social investor has to sacrifice financial return in favor of social return, the social investor arguably takes on more financial risk compared to the traditional investor. According to Brian Trelstad of Acumen Fund, a social investor is "someone who takes a double (or in some cases triple) bottom line approach to their capital, and attributes real value to the social or environmental return in their investment decision-making. They will often, but not always, be willing to exchange a lower economic return for potential social or environmental impact." So a fundamental challenge facing social entrepreneurs is to persuade investors, who normally invest in profit-oriented businesses, to invest in social ventures that not only do not promise significant returns, but are normally also highly susceptible to failure.

At the moment, there are no ready answers to this problem. In fact, there are many more challenges to come in terms of attracting investment into the social sector. Though the number of social investors continue to grow, it is unlikely to achieve a size large enough to meet all future social investment needs. Moreover, continued dependence on donor funding only leads to increased competition with other traditional nonprofits. Some have also suggested improving the profitability of social ventures by expanding their clientele to include the middle and upper classes, but this would arguably detract from the integrity of social entrepreneurship, which is supposed to serve the disadvantaged. Yet, without sufficient investment, a social venture's impact is limited because it cannot achieve significant scale.

## Social Return on Investment (SROI) & Its Importance

According to Social Economy Scotland, "SROI measures an organisation's added value by calculating the social, environmental and economic benefits it creates and by attributing a financial value to them. It is based on standard accounting

principles and investment appraisal techniques." It is a way of quantifying value creation. Like other investors, social investors, too, want to know if their investments are actually generating social returns. After all, just as economic profits justify the existence of businesses, so social returns justify the existence of nonprofits and social entrepreneurs.

But unlike other investors, social investors often have difficulty coming up with a precise, numerical value that can accurately represent the amount of social return produced. According to Sean Stannard-Stockton, the director of a wealth management firm,

"But what about the Social Return on Investment? If a donor makes a gift to a nonprofit, what is the "return" on that gift? How much "good" was achieved? The dollar amount given is easy, but "calculating" the "good" done is tough. First because knowing what "good" means is hard, secondly because relating "good" to dollars is like translating a symphony into organic chemistry, and third because identifying cause and effect is tough (did your grant create more jobs, or did the economy just happen to get better?)...I don't think we'll ever be able to honestly make statements like "My $10,000 donation achieved a 9.2% SROI". That would be like calculating that The Great Gatsby was a better investment of your time than Freakonomics."

## Calculating the Social Return on Investment

Some entrepreneurs have provided technical guidelines in an attempt to measure the social return on investment. Jed Emerson, Jay Wachowicz and Suzi Chun from Harvard Business School propose an SROI analysis using the following methodology:

"Examines a social service activity over a given time frame (usually five to 10 years); calculates the amount of "investment" required to support that activity and analyzes the capital structure of the non-profit that is in place to support that activity; identifies the various cost savings, reductions in spending and related benefits that accrue as a result of that social service activity; monetizes those cost savings and related benefits (that is to say, calculates the economic value of those costs in real dollar terms);discounts those savings back to the beginning of the investment timeframe (referred to as "Time Zero") using a net present value and/or discounted cash flow analysis; and then presents the Socio-Economic Value created during the investment time frame, expressing that value in terms of net present value and Social Return on Investment rates and ratios."

In presenting the above methodology, the authors also give a disclaimer: "The core SROI analysis, as presented by REDF, does not attempt to definitively quantify and capture all aspects of the benefits and value that accrue as a result of a successful program, but rather to identify direct, demonstrable cost savings or revenue contributions that result from that intervention." In other words, this is just one of many possible ways to calculate social return on investment, one based on cost savings and revenue contributions.

The Calvert Foundation has designed its own Social Return on Investment Calculator, based on the number of jobs created by the social venture. The diversity

of methods of value appraisal attest to the difficulty of providing a standard, consistent way of Social Return on Investment analysis

## The 'Invisible' Entrepreneurs

Social entrepreneurs from developing countries are seldom known. This is hardly because developing countries lack entrepreneurial talent; it is because many, especially those who have initiated entrepreneurial projects to lift themselves out of poverty, simply go unrecognized. The field of social entrepreneurship conventionally gives recognition only to MBAs and investment bankers, the elite group who have acquired specialized training in an institutional setting, but not to the poor and disenfranchised. It is time that they are recognized as legitimate practitioners of social entrepreneurship, and be given the necessary support and resources. No longer satisfied with just being the clientele of social ventures, the poor, too, want to participate actively in improving their own lives.

## Social Entrepreneurship: A Survival Tactic for the Poor

"The true social entrepreneurs are ghosts that never claim the glory for themselves, that work for their goal like their lives depend on it, because actually, their lives do depend on it. They don't work to be counted. You don't find them in congresses, seminars and forums. They don't read literature about social entrepreneurship; they don't study it. They just are social entrepreneurs because they need to be. They live for it and by it." – John Alexis Guerra Gomez

For many of the poor, social entrepreneurship is a vocation of necessity, not of choice. In an effort to eke out a living, many rural poor have unknowingly become what Western academics term social entrepreneurs. These entrepreneurs have low or maybe even zero visibility in the field of social entrepreneurship because they do not actively engage in public relations, or they do not have resources like Internet access or even the necessary language skills to discuss their ideas. Yet, they are contributing in significant ways to the betterment of their communities. Their social ventures may not achieve a scale significant enough to trigger a paradigm shift, as is conventionally the desired outcome of social entrepreneurship, but they nevertheless still have a huge impact on their immediate surroundings, especially on the poor people around them.

Contrary to popular belief, most poor people do not want to get by on charity; they want a sustainable way of making a living. Given the tools and resources, they too can become successful social entrepreneurs. But family always comes before community. Only when they can generate a consistent income to guarantee their own financial security, and their own families' economic stability, are they then willing to use their skills and resources to serve others in the community through their social ventures. "Individual ownership is the key to sustainable economic development," says Kickstart, a nonprofit that fights poverty.

## Community Members as Social Entrepreneurs

It seems that most social ventures are initiated by foreigners who see a social problem and decide that something should be done. But local people cannot always rely on the initiative of foreigners. Instead, local people themselves must take the initiative to develop their own entrepreneurial plans of action in response to social problems. Moreover, they possess unsurpassed experience and knowledge of their immediate surroundings and needs, and therefore are in a good position to take action.

Moreover, a powerful synergy can be created by harnessing the entrepreneurial talent of local people to develop social ventures in collaboration with social entrepreneurs from developed countries who can provide the funding and other resources. Unite For Sight, for instance, depends on such a synergy for its success; it cultivates and invests in the talent of local ophthalmologist leaders who have the determination and skill to create social enterprises that serve their community's poorest people.

Karrus Hayes, a Liberian refugee and the founder of "Vision Awake" Africa For Development, is another example of a "local" social entrepreneur. The 1989-1997 Civil War in Liberia was a period of unimaginable turmoil. Fleeing for their lives, thousands of Liberians have now settled in refugee camps in neighboring countries. But the living conditions in these camps are often deplorable, and residents suffer from the effects of poor sanitation, polluted land, and contaminated water. In one such refugee camp, Bududuram Refugee Camp in ghana, Karrus Hayes realized that many children could not go to school. Seeing an unfilled education need, he decided to set up a free school. He had no money, but he had an entrepreneurial spirit. With a loan of $50 and some donated church space, he started the refugee camp's only tuition-free school for needy children. Today, his organization runs several programs, including a community college, microfinance and orphan assistance programs.

"It really touched me, but I didn't have control over it...I'm a refugee too. I don't have any means of helping. But I knew that I would do something because I had an idea." – Karrus Hayes

## Supporting Local Entrepreneurial Talent

"To define people by their conditions rather than their abilities is dehumanizing. When you look past the poverty, you see abilities, resources, and desires. The poor are extremely hard-working and entrepreneurial – they must be just to survive. They don't want or need to be rescued. They want an opportunity to create a better life for their families."

It is clear that local entrepreneurial talent should be nurtured and developed. In order to do so, the field of social entrepreneurship must reach out to the "invisible" social entrepreneurs whose talent remains untapped. Ashni Mohnot has several ideas on how this could be done. In particular, she suggests that entrepreneurship conferences, like the Skoll World Forum, should encourage participation from these "invisible" social entrepreneurs in developing countries. More funding should also be made available locally to fund their social ventures.

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| Course Name | : Information Technology |
|---|---|

**Course Description**
This Course is built on the previous acquired knowledge of Computer applications through theoretical lecturers and laboratory sessions. The course explores systems development life cycle (SDLC), describing the data processing cycle, data processing, security issues & concerns in systems protection of its information, office automation, data base management system (DBMS)

**Course Objectives**
· To expose students to practical knowledge of developing information and database system for organizations and business firms.
· To enable understand how information and data is processed through an automated cycle.
· To help them develop skills in data entry and retrieval within different computer systems.

**Course Content**
**Systems Development Life cycle (SDLC)**
· Stages involved in the SDLC include; Problem identification, feasibility study, systems investigation, systems analysis, systems implementation, systems implementation, review and maintenance

**Data Processing Cycle**
· The input function
· The processing function
· The output function
· The storage function

**Data processing operations**
· Batch processing
· Real-time processing
· Features of a storage and retrieval system

**Security issues/ concerns**
· Risks to the computer users
· Risks to hardware
· Physical Access control
· Risks to storage media
· Risks to data
· Best password practice(BPP)
· Telecommunications dangers
· Encryption and other safety measures on telecommunication

**Data Base Management systems (DBMS)**
· Definition of DBMS
· DBMS structures
· Application program
· Elements of a DBMS

· Facilities offered by database management systems
· Benefits of a DBMS
· Designing a database
· Verification and validation checks

**Office Automation**
· Spread sheet
· Features of spread sheets
· Word processing
· Microsoft Access
· Internet

**Mode of delivery** Face to face lectures
**Assessment**
**Coursework** 40%
**Exams** 60%
**Total Mark** 100%

**AFRICA POPULATION INSTITUTE MODULES**
**COMPUTER TECHNIQUES**

# CHAPTER FIVE

# SYSTEMS DEVELOPMENT LIFE CYCLE (SDLC)

## 5:0 INTRODUCTION

Under this Chapter we shall look at the following:
- ♦Feasibility study
- ♦Systems investigation
- ♦Systems analysis
- ♦Systems design
- ♦Systems implementation
- ♦Review and maintenance

A company or an organisation of any sort will normally have a strategic plan.
This strategic plan could be probably increasing sales by say 30% in the next 5 years.

When such a plan is in place, departments in the organisation will also set their strategies, to ensure that they contribute as required to the overall strategic plan. These departments may include; Production, Marketing, Sales, IT, Human Resource, etc.

**Definition**
A strategy is a general statement of a business's long-term objectives and goals and the ways by which these will be achieved.

## 5:1 THE IT STRATEGY

This will always deal with the organisational needs from IT, the organisation's current use of IT and the potential opportunities that IT can bring.
During the evaluation of current use of IT in the organisation, Gaps (differences) can be identified. E.g. does the system meet the desired requirements, are users happy, is the system reliable, etc.

## 5:2 STAGES IN THE SYSTEMS DEVELOPMENT LIFE CYCLE

This is the cycle that any system, which can be used in an organisation, can be developed through. It is called a cycle because the stages involved in the development will always be continuous and repeat themselves in the same way.

The stages involved in the systems development life cycle include the following in their order
- ♦Problem identification
- ♦Feasibility study
- ♦Systems investigation
- ♦Systems analysis

- Systems design
- Systems implementation
- Review and maintenance

**Definition**
A system is a collection of activities and elements organised to accomplish a goal.

A computer information system (CIS) is a collection of hardware, software, people procedures and data that work together to provide information essential to running an organisation.
Life cycle -This implies t hat the system changes continually, in other words that, development of computer information system within an organisation is an ongoing activity.

**PROBLEM IDENTIFICATION**
The SDLC typically begins by identifying a problem or need. It involves a preliminary investigation of a proposed project to determine the need for a new information system.

An end user usually requests this or manger who wants something done that is not presently being done.

The exact problem or flow in the system should be known e.g. slowness resulting in the incompetence of the system, too heavy work than is manageable effectively by the system and areas of poor performance being identified by management which increase the level of indirect expenses.

Possible plans or suggestions with alternative arrangements to the present ones are then forwarded to management in a report - to decide whether to pursue the project further.

If so then management hands the terms of reference to the system analyst. Once the analyst get a go ahead, he conducts a feasibility study within the limits of the terms of reference.

**FEASIBILITY STUDY**
This is a forma study to decide what type of system can be developed which meets the needs of the organisation.

It involves a brief review of the existing system and the identification of a range of possible alternative solutions.

The systems analyst here will estimate the costs and benefits of the systems with greater accuracy.
The alternative that promises a significant return on the investment will be accepted.

Feasibility study comprises the following:
- Technical feasibility
- Operational feasibility
- Financial feasibility

♦ Economic feasibility
♦Social feasibility or organisational feasibility

**1. Technical feasibility**
The requirements, as defined in the feasibility study, must be technically achievable. This means that any proposed solution must be capable of being implemented using available hard ware, soft ware and other equipment**.**

**2. Financial feasibility**
The certified public accountant will have an in depth role to play at this stage in proceedings. The economic contribution of the whole system must be assessed.

At this level, the cost-benefit analysis will be carried out on all the possible alternatives, to identify the one with best returns.

There are three principal methods of evaluating a capital project

i) **Payback Period**
This method of investment appraisal calculates the length of time a project will take to recoup the initial investment - that is, how long a project will take to pay for itself. The method is based on cash flows.

ii) **Accounting Rate of Return**
This method, also called return on investment, calculates the profits that will be earned by a project and expresses this as a percentage of the capital invested in the project. The higher the rate of return, the higher a project is ranked. This method is based on
accounting results rather than cash flows.

iii) **Discounted Cash Flow (DCF)**
This method can be sub divided into two

♦**Net Present Value (NPV)**
This considers all relevant cash flows associated with a project over the whole of its life and adjusts those occurring in future years to 'present value' by discounting at a rate called the 'cost of capital'.

♦ **Internal rate of return (IRR)**
This involves comparing the rate of return expected from the project calculated On a discounted cash flow basis with the rate used as the cost of capital. Projects with an IRR higher than the cost of capital are worth undertaking.

**3. Organisational feasibility**
The culture of the organisation, its structure, working practices, behavioural patterns and social systems need to be considered.

After the outlined project specifications are prepared these are presented to users who, with the assistance of technical staff will evaluate each option and make a final choice.

The results of this are included in a feasibility report.

## SYSTEMS INVESTIGATION

The systems investigation is a detailed fact finding exercise about the area under consideration.

The following will be considered here by the project team;

- Determine the inputs, outputs, processing methods and volumes of the current system
- Examining controls, staffing and costs and also reviews the organisational structure.
- Also considers the expected growth of the organisation and its future requirements.

The stages involved in this phase of systems development are as follows:

a) Fact finding by means of questionnaires, interviews, observation, reading handbooks, manuals, organisational charts.
b) Fact recording using flow charts, decision tables, narrative descriptions, etc.
c) Evaluation, assessing the strengths and weaknesses of the existing system.

Methods used in obtaining facts about the existing system:

- Interviews

If interviews are conducted effectively, they allow the interviewer to provide information as well as obtain it. This method is the most appropriate for senior management, as other approaches may not be appropriate at executive levels.

- Questionnaires

The use of questionnaires may be useful whenever a limited amount of information is required from a large number of individuals, or where the organisation is decentralised with many 'separate entity' locations. Questions are normally set in such a way that each one is equal to another and the evaluation is done by simply adding the number of 'yes' and 'no'.

- Observation

Here the investigator simply observes/watches the procedures as they occur. The problem here is that people normally tend to behave abnormally especially if they know that they are being watched.

- Document Review

The systems analyst must investigate the document that are used in the system., e.g. organisational charts, procedures mammals and standard operational forms.

The overriding risk is that staff do not follow documented policies and procedure or that these documents have not been properly updated, so this method is best used within other techniques.

**SYSTEM ANALYSIS**

At this phase, a full documentation of the current system, oftenly using data flow diagrams is done. The ways in which the system can be changed to improve it are then considered, and diagrams are redrawn to reflect the required system.

**Definition**

A data flow diagram is a recording of the ways in which data is processed, without bothering with the equipment used.

**SYSTEMS DESIGN**

This involves the detailed systems specification draw up.
The selection of the suitable hardware, software and any required human - computer interface is done at this level.

**Hard ware**

In general terms, the choice of computer hardware will depend on the following factors:

♦User requirements - will the hardware suite in with the user's requirements.
♦Power - the computer power should be sufficient for the current and future requirements.
♦Reliability - there should be a low expected 'break down' rate. Back-up facilities should be available.
♦Simplicity - simple systems are probably best for small organisations.
♦Ease of communication - the system (hard ware and soft ware) should be able to communicate well with the user.
♦Flexibility - the hardware should be able to meet new requirements as they emerge, especially more powerful CPUs.
♦Cost - it must be affordable.

**Soft ware**

There are several points to consider while choosing a suitable package. They include the following:

♦**User requirements**

**Does the package fit the user's particular requirements? E.g. report production, anticipated volume of data, etc.**

♦Processing times

Is the processing times fast enough?

♦Documentation

**The documentation should be full and clear to the user e.g. the manuals should easily be understood.**

♦Controls - what controls are included in the package e.g. pass words, data validation checks, spell checks, etc.
♦Compatibility - will the package run on the user's computer?
♦Support and maintenance - what support and maintenance services will the software supplier provide?
♦User friendliness

Is the package easy to use? E.g. with means and clear on-screen prompts for the Key board operator.

♦Cost
Comparative costs of different packages should be a low priority. The company Should obtain what it needs for efficient operation. Off-the-shelf packages are a little cheaper that tailor made packages (bespoke).

A key question regarding software is whether to develop a system specially or buy what is already available (off-the-shelf)

**Bespoke Packages**
These are designed and written either 'in-house' by the IS department or externally by a software house. They are normally developed according to the customer specifications.

**Off-the shelf packages**
These are packages that are developed and sold to lots of users and intended to handle the most common user requirements.

**Advantages of bespoke packages include:**
i) The company owns the software and may be able to sell it to other potential users.
ii) The company can be able to do things with its software that competitors cannot do with theirs.
iii) It is likely that the package will be able to do all that is required it to do both now and in the future.

**Disadvantages**
a) The soft ware may not work at all.
b) There may be long delay before the soft ware is ready.
c) The cost is relatively high compared to off-the-shelf packages.

**Advantages of using off-the shelf packages**
a) It is available now and ready for use.
b) It is almost certainly cheaper than a specially commissioned product.
c) Expected high quality because software specialist writes them.
d) The software manufacturer will continually update a successful package, and so the version that a customer buys should be up-to-date.
e) Other users will have used the package already, and a well established package should be error-free.
f) These packages (good) are usually well-documented with easy to follow user manuals.

**Disadvantages**
a) A computer user gets a standardised solution to a data processing task. This may not well suite in the individual user's particular needs.
b) The user is dependent on the supplier for maintenance of the package.

c) There is always no competitive advantage as the competitors can use the same package.

Systems prototypes are likely to be developed here.

**Definition**
A prototype is a diagrammatic representation of the actual proposed system. It includes the number of hardware required, its configuration, information flow, staff, etc.

## SYSTEMS INSTALLATION AND IMPLEMENTATION

Under this phase, the following stages are normally followed;

a) Installation of hardware and software
b) Testing
c) Staff training and production of documentation
d) Conversion of files and database creation
e) Change over

The items/stages in the list above do not necessarily happen in a set chronological order, and some can be done at the same time - for example staff training and system testing can be part of the same operation.

**Installation of equipment**
Installing a mainframe computer or a large network is a major operation that is carried out by the manufacturer/supplier.

Installation of a PC and other peripheral equipment will need a little bit of planning.

♦They should not be put in small, hot rooms since they generate some heat.
♦Large desks may be advisable, to accommodate a screen and keyboard and leave some free desk space for the officer worker to use.
♦There should be plenty of power sockets-enough to meet future needs as t he system grows, not just immediate needs.
♦If noisy printers are being purchased, it may be advisable to locate these in a separate printer room to cut down the noise for office workers.
♦There should be a telephone near the computer, for communicating with the dealer that provides systems support and advice if there is a problem.
♦The cabling for network connections should consider possible future changes in office key out or in system requirements.

After the installation of hardware, then software can be installed too. The can be done very fast there days since software is available on CD-ROMs and DVDs.

Back up copies of the software may also be got.

**Testing**
Programs must be thoroughly tested as they are being written and the whole system should also be thoroughly checked before implementation, otherwise there is a danger that the new system will go live with faults that might prove costly.
'Test data' is normally used here.
Test data is fed into the computer/new system and the results from the new system are compared with the already existing/pre-determined results from the old system.

Any deviations can be used to make decisions as to whether the system has passed or failed the test.

**Training and documentation**
Staff training in the use of information technology is as important as the technology itself. There is no use in having it if people don't know hoe to use it. This can be done through, lectures, discussion meetings, handbooks, trials/tests, internal company magazines, courses, manuals, etc.

**Conversion of files**
This means converting existing files into a format suitable for the new system.
Large organisations may use conversion software to change over:

Once the new system has been fully and satisfactorily tested, the change over can be made. This may be according to one of four approaches.
- ♦ Direct change over
- ♦Parallel running
- ♦Pilot tests
- ♦ 'Phased' or 'Stayed' implementation

**Direct change over**
This is the method of changeover in which the old system is completely replaced by the new system in one move.

This may be unavoidable where the two systems are substantially different, or where extra staff to over seed parallel running are unobtainable.

It is very cheap, but very risky as well and it is best used in business slack periods e.g. Christmas, holidays, etc.

**Parallel running**
This is a form of changeover where by the old and new systems are run in parallel for a period of time, both processing current data and enabling cross checking to be done.

It is a bit safe (less risky), but if the two systems are different, then cross-checking may be hard or impossible. Also, there is a delay in the cultural implementation of the new system and also a need for more staff to run the two system - an indication of high expenses.

**Pilot Operation**
This may involve a complete logical part of the whole system being chosen and run as a unit on the new system. If that is shown to be working well, the remaining parts are then transferred.

Gradually the whole system can be transferred in this piece meal fashion.
This method is cheaper and easier to control than parallel running, and provides a greater degree of safety than does a direct change over.

**Phased Implementation**

This involves a parallel running or direct change over done to a system of a particular section, say a branch of a company.

This method is suitable for very large projects and/or those where distinct parts of the system are geographically dispersed.

At this phase/stage (systems installation) of the SDLC, the internal auditors role is usually very important, especially during the testing of the new system.

This is because the facts he obtains at the testing stage can be used in future evaluation of the system and any audits that may be carried out.

A reference can always be made to the facts generated by the auditor at the testing stage to ensure there are no illegal amendments to the system.

## SYSTEMS MAINTENANCE AND REVIEW

### Maintenance

This is geared towards keeping the system running smoothly and achieving the intended goals.

There are three types of maintenance activities,

- Corrective maintenance
- Perfective maintenance
- Adaptive maintenance

### Corrective maintenance

Is carried out when there is a systems failure of some kind, for example in processing or in an implementation procedure. Its objective is to ensure that systems remain operational.

### Perfective maintenance

Is carried out in order to perfect the software, or to improve software so that the processing inefficiencies are eliminated and performance is enhanced.

### Adaptive maintenance

Is carried out to take account of anticipated changes in the processing environment. E.g. the new taxation legislation might require change to be made to payroll software.

### Post Implementation Review

This is devoted to uncovering problems in the system so as they can be fine tuned. Also it reviews t he activities involving methods used in developing the system. It is of two steps:

- Development review

Here the problems that arose during the development phases of the life cycle are analysed. Major discussions focus on expenditure and the period taken to complete the new system. Positive or negative variances in the expenditures are analysed.

Mistakes resulting to negative variances are noted and are unlikely to be repeated in the future likewise positive variances.

Also mistakes that led to the delay are noted and avoided in the future.

**♦Implementation Review**
This step investigates the specific successes and problems of system operations. These activities take some time after systems implementation say 1½ years. It is intended to ensure that the system meets the desired goals it was implemented for.

In summary still, the systems development life cycle follows these stages and it is very examinable.

1. Problem identification
2. Feasibility study
3. Systems investigation - detailed
4. Systems analysis
5. Systems design
6. Systems implementation
7. Systems maintenance and review

**Question:**

a) In the SDLC, which stage go you think directly involves a certified public accountant like you, and what would you be required for?
b) Describe for methods of system change over.
c) Distinguish between off-the shelf and bespoke software.
d) What is feasibility study?

# CHAPTER SIX

## THE DATA PROCESSING CYCLE

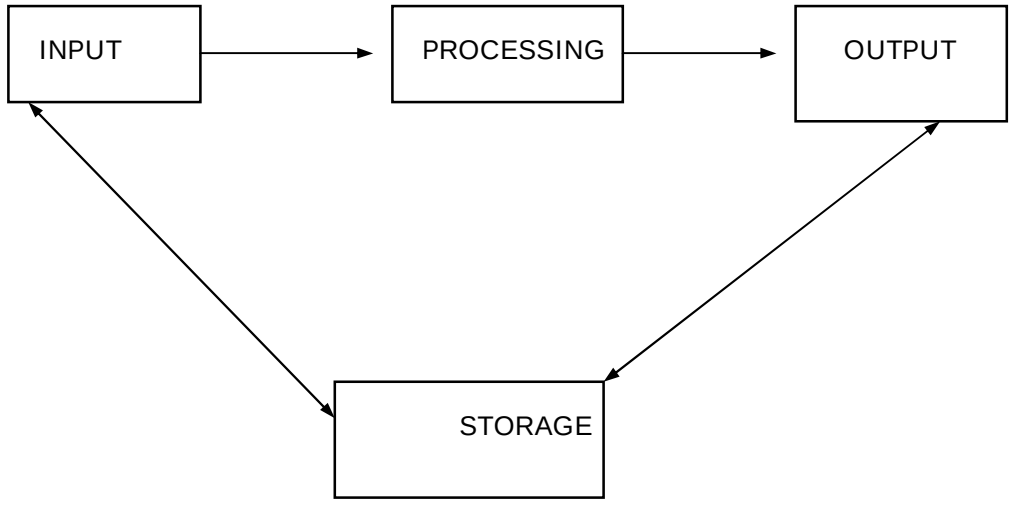
### 6:0 INTRODUCTION
Under this Chapter we shall look at the following:
- ♦Processing cycle
- ♦ Processing operations
- ♦Storage and retrieval systems
- ♦Classification of files

### 6:1 DATA PROCESSING CYCLE
Data processing, whether it is done manually or by computer, follows a cycle of input, process, output and storage.

Data processing is the acquisition, arrangement, storage and maintenance of data. The use of the computer is just to speed up and allow the use of complicated models compared to other methods.

A cycle refers to a sequence of activities performed in order, that produces expected dependable results.

**The DP Cycle**




**The input function;**
This involves gathering/collecting needed data items and entering the items into the information system for processing. This is done by the computer input devices.

Inputs can come from multiple sources. The quality, accuracy and completeness of data will affect the quality of the resulting information.

**The processing function**
This involves any method for using, handling, processing operations transforms transform data into meaningful information.

Processing creates new information which in turn is returned to files for updating and, or communicated to people.

**The output information**
Output delivers the results of processing i.e. information which can in turn be communicated to the people known as users of computers or information. This is normally done by the output devices.

**The storage information**
An information system needs a massive supply of data records and files. In this sense, storage is a vital part of an information system. The storage function also involves updating files to incorporate processed data. Storage can be done into the various types of storage peripherals that you already know.

## 6:2 DATA PROCESSING OPERATIONS

Files are used to store data and information that will be needed again in future or for the current use.
A file is a collection of records with similar characteristics.

The main types of data processing operations involving files are file updating, file maintenance and file enquiry or file interrogation.

Both manual and computer data processing can be divided into two broad types:
- ♦Batch processing
- ♦Real-time processing

**Batch Processing**
This is the processing as a group of a number of transactions of a similar kind which have been entered over a period of time to a computer system. Data is entered first, and then gets processed at a go as a group.

E.g. you may enter all the names into the system and then command it to arrange them in alphabetical order.

Transaction is any updating work on a database file. This can include entry of a new record, amending a record, deleting a record, etc.

**Real-time processing**
This is the continual receiving and rapid processing of data so as to be able or more less instantly to feed back the results of that input to the source of the data.

Real-time processing uses an 'on-line' computer system to interrogate or update files as requested rather than batching such requests together for subsequent processing.

**On-line**
On-line refers to a machine, which is under the direct control of the principal central processor for that hardware configuration.

Modern computers such as PCs are on-line by definition and likewise PCs in a network have permanent access to the server.

## 6:3 FEATURES OF A STORAGE AND RETRIEVAL SYSTEM

Whatever form documents and recorded information take, if they are to be of any use, they must be kept in a suitable way so that:

a) Authorised people can get to the information they require quickly and easily;
b) Information can be added to, updated and deleted as necessary;
c) Information is safe from fire loss or handling damage as long as it is required;
d) Accessibility, flexibility and security are achieved as cheaply as possible.

**Classification of Files**

Accessibility is a key point. When information is filed, it has to be filed in such a way that its users know where it is and how to retrieve it later when it is needed.

This means having different files for different types of information, and then holding each file in a particular order. Information might be divided into categories and then held in a particular order within each category.

There are various ways in which information can be grouped together, or classified.

a) By name (for example correspondence relating to a particular person)
b) By geography (for example all documents relating to a particular country, area or city).
c) By subject matter (for example all document relating to a particular contract, transaction or problem).
d) By date (for example all invoices for a certain month or year).
e) By department (for example profits or costs for each department or employee of each department).

Once broad classifications are established, the material can be put into a sequence which will make individual items easier to retrieve.

Again there are various systems for arranging files

a) Alphabetical order - for example customers listed in name order
b) Numerical order - for example invoices listed in numerical order of invoice numbers.
c) Alpha-numerical (A1, A2, A3, B1, B2, and so on).
d) Chronological order -f or example letters within a subject file listed by the date they were written.

# CHAPTER SEVEN

## SECURITY ISSUES

## 7:0 INTRODUCTION

Under this topic we shall look at the following,

- ♦Risks to the computer user
- ♦Risks to hardware
- ♦Physical access control
- ♦Controls over personnel
- ♦Risks to storage media
- ♦Risks to data

♦Back-up procedures
♦Telecommunication risks

A computer system consists not only of hardware, software, data and procedures but also of people.

Because of people, computer systems may be used for both good and bad purposes.

**7:1 RISKS TO THE COMPUTER USER**
If you have ever worked for long periods at a computer, you may have experienced some discomfort. This might have been caused by your use of the screen or the keyboard.

**The VDU**
If the screen is too bright, it can cause eyestrain. There are two ways of dealing with the problem. The first is to turn down the brightness; all monitors have a brightness and a contrast switch.
The second is to fit some kind of anti glare filter. All VDUs must have a swivel and tilt capability.

The physical health matters related to computer that have received the most attention recently are the following:-

**1. Eye strain and headache**
VDUs require using the eyes at close range for a long time, this can create eye strain, headaches and double vision.

**And this is normally when the screen is too bright. To avoid this, take a 15 minute break every hour or two. Turn the brightness down.**

Use of special anti-glare screen coatings and glare filters. Keep everything
You are
focusing on at about the same distance e.g. the screen, key board, document holder containing your work.

Clean the screen of dust from time to time.

**2. Back on neck pain**
Many people work at VDU screens and key boards that are in improper positions resulting in back and neck pain.

**To avoid such problems;**
**♦Make sure the equipment is adjustable. Your chair should be adjustable for height and angle and should have good back support.**
♦The table on which the monitor stands should be adjustable.
♦The monitor should be detachable.
♦ Document holders should be adjustable.

**3. Electro magnetic fields effects**
Like many household appliances, VDUs generate invisible electro magnetic fields

(EMF) emissions which can pass through the human body.

**Recommendations include;**
♦Use of low emission monitors.
♦Computer users should sit 2 feet or more from screens and at least 3 feet from neighbouring terminals, as the strongest fields are emitted from the sides and back sides of terminals.
♦Use of glare filters which also reduce the emissions getting to an individual from the screen.

**Repetitive Strain Injury (RSI)**
Data entry operators in some companies may make as many keystrokes a day as possible. Some have fallen victim to a disorder known as RSI. This name is given to this disorder, which results from fast repetitive work that can cause neck, wrist, hand and arm pains.

**Avoidance of RSI includes;**
♦Taking short rest breaks
♦Getting plenty of sleep and exercise
♦Loosing weight, sitting straight
♦ Learning stress management techniques

Other computer health risks include:
♦Injury from electric shock

**7:2 RISKS TO HARDWARE**
Threats to hardware security are computer crimes including virus, electronic break-ins and natural, etc. Keeping information private in part depends on keeping computer systems safe from criminal acts, natural hazards and other threats.

**Physical Threats**

**Fire and Flood**
Fire is the most serious hazard to computer systems. Destruction of data can be even more costly than the destruction of hardware.

A fire safety plan is an essential feature of security procedures. It includes;

♦Site preparation - appropriate building materials, fire doors, etc.
♦Detection - e.g. smoke detectors
♦Extinguishing - e.g. sprinklers
♦Training staff in observing fire safety procedures e.g. the smoking in computer rooms

Water is a serious hazard. Flooding and water damage are often encountered following fire fighting activities else where in a building.

This problem can be countered by water proof ceiling and floors together with provision of adequate drainage. In some areas, floods are a natural hazards and therefore basements are generally not regarded as appropriate sites for computers.

**Weather**
The weather may be a threat. Wind, rain and storms can all cause substantial damage to buildings. Lightning and electrical storms pose an additional threat, as they can play havoc with power supply, causing power failures and power surges.

One way of combating this is by the use of un interrupted (protected) power supplies (UPS) Power failure may be solved by obtaining a separate generator.

**Theft**
Office break-ins are common. This can be combated by use of burglar proof windows and doors, etc.

**7:3 PHYSICAL ACCESS CONTROL**
The way to minimise many of the risks discussed in the above section is to introduce a series of physical access controls, to prevent intruders getting near the computer equipment or storage media. Methods of controlling human access include:

- Personnel (Security guards)
- Mechanical devices (e.g. keys, whose issues is recorded)
- Electronic identification devices (e.g. card-swipe systems, where a card is passed through a reader.

**Personal identification numbers (PINs)**
In some systems, the user might have a special PIN, which identifies him or her to the system. According to what the user's PIN is, the user will be allowed access to certain data and parts of the system but forbidden access to other parts.

**Door locks**
Connectional door locks are of value in certain circumstances, particularly where users are only required to pass through the door a couple of times a day. If the number of people using the door increases and the frequency of use is high, it will be difficult to persuade staff to lock the door every time they pass through it.

The major difficulty with this is the fact of key control. And the solution would be installing a combination door lock. This is where a numbered keypad is located outside the door and access allowed only after the correct 'code', or sequence of digits has been entered.

This will be effective if users keep the combination secret and the combination is changed frequently.

**Card Entry Systems**
This is a more sophisticated means of control than the use of locks, as cards can be programmed to allow access to certain parts of a building only, between certain times.

**Security guards**
These can be deployed at each entrance in the building to restrict access as may be required.

**Video Surveillance**
These (video cameras) are normally placed in certain strategic areas say corners, corridors, inside the rooms, etc. to cover any moving object. They are normally connected to a certain surveillance room of several TVs and a person to see the moving objects on TV.

## 7:4 CONTROL OVER PERSONNEL

**Personnel Selection**
The personnel who are to operate in the IT departments need to be fully scrutinised at the recruitment state and after recruitment, they need to be managed properly.

Controls related to personnel include the following:
i) Checks and balances so that a security violation must pass through several steps before being implemented.
ii) Segregation of duties (division of responsibilities)
iii)Job rotation so that employees change jobs at random intervals.
iv) Enforced vocations
v) Access to information granted not on rank in the management hierarchy or precedent, but on a need-to-know basis.
vi)Careful selection of personnel especially those to work in the IT departments.

**Fraud**
Computer frauds come from disgruntled employees, organised crime and hackers. Networks make certain types of fraud easier; this is because many people/employees can have access to the computer system.

Two types of fraud can be identified

i)Single large-scale funds - usually the stealing of large amounts of money.
ii)Small-scale, but long-term frauds.

Examples of methods of fraud are given below:
i) Creation of fictitious supplier accounts and submission of false invoices, usually for services rather than goods, so that payments are sent to the fictitious supplier.
ii) Corruption and bribery, particularly where individuals are in a position of authority as regards making decisions or suppliers or selecting between tenders.
iii) Misappropriation of incoming cheques from bonafide customers.
iv) Theft of portable fixed assets.
v) Giving unauthorised discounts to customers.
i) Fictitious staff on the pay roll.

These frauds do not all involve computers in the commission, but many could be detected by appropriate use of computer controls, perusal of exception reports, analysis of expenditure ratios and the like.

## 7:5 RISKS TO STORAGE MEDIA

### Handling floppy disks, CDs and tapes

Floppy disks and CDs should be handled with care just as you would treat a valuable CD with care.

i)They break when you bend them or you run them over with the castors of your chair.
ii) Spilling hot drinks over them and leaving them on sunny windows sills will damage them.
i) CDs should particularly be protected from dust, scratches and finger prints.
ii) For floppies write on the label before you stick it on to the disk and write only with a felt tip pen, never a ball point.
iii) Floppies are affected by magnets sot hey should be kept far from magnets.

Tapes can be snipped with scissors, or get knotted up, and they can also be damaged by magnets and heat and liquid. Treat them with the same care you would give to your favourite audio/video tape.

## 7:6 RISKS TO DATA

Risks to data can be in the form of deliberate or accidental:
i))Destruction (or alteration)
ii)Theft
iii) Unauthorised disclosure

There are therefore two types of controls used to restrict access.

♦Physical access controls (analysed earlier)
♦Logical access control

Basically logical access control consists of a password system. Data destruction can be protected against by taking back-ups and the risk of alteration of data minimised by a variety of basic precautions.

### Passwords

Passwords are a set of characters, which may be allocated to a person, a terminal or a facility, which are required to be keyed into the system before further access is permitted.

Passwords can be applied to data files, program files and parts of a program.

i) One password may be required to read a file, but another to write new data to it.
ii) The terminal user can be restricted to the use of certain files and programs
(e.g. in a banking system, junior grades of staff are only allowed to access certain routine programs).

In order to access a system the user needs first to enter a string of characters. If what is entered matches a password issued to an authorised user or valid for that particular terminal the system permits access. Otherwise the system shuts down and may record the attempted unauthorised access.

**Disadvantages of passwords**

i)By experimenting with possible passwords, an unauthorised person can gain access to a program or file by guessing the correct passwords. This can usually be easy especially where users pick on to use obvious password like their names, etc.
ii) Some one authorised to access a data or program file may fell an unauthorised person what the password is, perhaps through carelessness.
iii)Many password systems come with standard passwords as part of the system. It is always better not to use such standard systems.
i) Passwords can be left in the open and any one gains access to them.

## 7:7 BEST PASSWORD PRACTICE (BPP)

These are points that have to be observed by computer users to whom passwords have been allocated.

- ♦Keep your password secret - don't reveal it to anyone.
- ♦Do not write it down as any body may come across it.
- ♦Change your password regularly.
- ♦Change and use your password discretely - some body can watch the movement of fingers to determine the password.
- ♦Do not use obvious pass words e.g. your name, etc.
- ♦Change your password if you suspect that any one else knows it.

## 7:8 TELECOMMUNICATIONS DANGERS

When data is transmitted over a network or telecommunications link (especially the internet) there are numerous security dangers.

a) i)Corruptions such as viruses on or single computer can spread through the network to all of the organisation's computers.
b) Staff can do damage through their own computer to data stored on other computers. E.g. transferring a file of the same name to the colleague's which may cause an over write.
c) Disaffected employees have much greater potential to do deliberate damage to valuable corporate data or systems.
d) If the organisation is linked to an external network, persons outside the company (hackers) may be able to get into the company's internal network, either to steal data, or to damage the system.
   Systems can have firewalls - these are used to prevent a particular network from intrusion from any other network e.g. a company network and the Internet.
e) Employees may down load inaccurate information or imperfect or virus-ridden software from an external network.

f) Information transmitted from one part of an organisation to another may be intercepted.
   Data can be encrypted (scrambled) in an attempt to make it meaning less to those who are not entitled for it.
g) The communications link it self may break down or distort data.

**Encryption and other safety measures on telecommunication**

♦Encryption involves scrambling the data at one end of the line, transmitting the scrambled data, and unscrambling it at the receivers end to the line.

**Authentication**

This involves adding an extra field to a record, with the contents of this field Derived from the remainder of the record by applying an algorithm that has previously been agreed between the senders and recipients of data.

**Dial-back security**

This operates by requiring the person wanting access to the network to dial into it and identify themselves first. The system then dials the person back on their authorised number before allowing them access.

**Hacking**

A hacker is a person who attempts to invade the privacy of a system. There are normally skilled programmers, and have been known to crack system passwords with consummate ease.

# CHAPTER EIGHT

# DATA BASE MANAGEMENT SYSTEMS

## 8:0 INTRODUCTION

Under this Chapter we shall look at the following:
- ♦Data base management system (DBMS) structures
- ♦Designing a data base
- ♦Verification and validation checks

## 8:1 DBMS STRUCTURES

Data within databases (or most other computerised filing systems) is organised in a specific hierarchy. The aim of the organisation method is to provide generally accepted and workable method of storing and accessing data in computer files. The basic concepts to be understood are as follows.

- ♦**Database** -stores information about the organisation within individual files
- ♦**File** - information concerning one aspect of the organisation, such as details of debtors.
- ♦**Record** - all the detailed information about one person or item within a file. E.g. in a debtors file, there will be information about the debtor.
- ♦**Field** - one item of data e.g. within the debtor's record this could be the debtor name.
- ♦**Byte** - one character
- ♦**Bit** - the smallest unit of computer storage - one area of memory, which can hold the value 0 or 1.
- ♦**Entry set/type** – Group of similar objects of concern to an organisation for which it maintains data transactions, courses, employees, students, non academic staff etc.

**Meta data** – is data used to define other data

**Attributes – Characteristics of object category.**
Entity- Basic units used in modelling.
Modelling – Some basic common functions.
Database – Collection of related files
Key - Single attribute
Primary key – unique entity identifier
Supper Key – Additional attributes to a primary key
Candidate Key – 2 or more attributes uniquely identifying an entity set
Secondary Key- An attributes/combination of attributes that may not be candidate keys but classifies the entity set
Meta data – Using data to describe/define data
External View of data – Highest level of application
Global view of data – lowest level of actual data storage

### Naïve user

♦Not aware of DB (Database systems)
♦Responds by processing a coded Key
♦Then operations are very limited

### On-Line User

♦Communicate with database directly via a user interface and application programme
♦Aware of database system (DBS)
♦Use data manipulation language
♦Need additional help like merits

There are three basic database structures having different levels of sophistication hierarchical databases, network databases and relational databases.

As hierarchical and network data bases are rare these days, we shall confine on describing the relational model.

**Relations Database**

The concepts behind relational databases were developed by EF Codd of IBM.

The data is stored in tables, which are derived by a mathematical form of analysis on the sources of data for the system e.g. input screens, reports.
In a relational database, data is split between different two-dimensional tables, which are linked together via a set of unique keys

Commercially available relational databases include IBM's DB2 and Oracle. Ms Access is also a relational database.

**APPLICATION PROGRAMME.**

♦Are professional programmers
♦Develop application programme user interface utilised by
♦The naïve & online users
♦Are programme written in general purpose programming language e.g. Assembler, COBOL, Fortran, Pascal etc.

**DATA BASE MANAGEMENT SYSTEMS**

**Definition:**

A database is a file (or files) of data so structured that many applications can use the file and update it, but which do not themselves constrain the file design or its contents.

This is of major benefits to the organisation including data sharing between applications.

**DBMS**

This is specialist software used to create and maintain a database.

Organisations collect and use vast amounts of data. One method of storing and accessing this data is to place it within one large store and use a DBMS to effectively control that data.

The DBMS is normally located between the main database of the organisation and the different applications that want to access and use that data.

**Elements of a DBMS**
A DBMS comprises three separate sections i.e.

a) Data Definition Language (DDL)
b) Data Manipulation Language (DML)
c) Data Dictionary

DDL is used to specify the content and structure of the database. The DDL defines

the form of each item of data in the database so that the data can be accessed and

used by the various application programs accessing the database.

Entry set/Type – Group of similar objects of concerned to an organisation for which

it maintains e.g. data transactions, courses, employee, students, non-academic staff

etc.

♦Defines the conceptual scheme
♦Curves details how to implement the conceptual scheme and stores data

DML is a specialist language used to manipulate data within the database. The DML is a fourth generation language.
♦Involves retrieval of data from the database
♦Inserts raw data into the database

The Data Dictionary is a program used to store and organise the data in the database. The dictionary stores key information about the data, such as who uses the data, what the access rights to data are and who owns the data and is therefore responsible for updating it. Deletes and modifies existing data.

**Facilities offered by database management systems**

The DBMS will offer the following facilities:
a) The ability to add, amend and delete records
b) The ability to retrieve data
c) The ability to present data in different formats and combinations as required
d) The ability to control access to records by means of passwords and other security procedures

e) The ability to allow the database to evolve without requiring modification to applications programs
f) The ability to recover from systems break down and avoid data loss
g) The ability to record transactions and identify redundant data.

## 8:2 DATABASE ADMINISTRATORS (DBA)

Centralised control of data base under one controller that is sole administrator.
The DBA's work can be split into strategic and organisational activities.

### a) Strategic Tasks

(i) Working with strategic management to help define the organisation's present and future needs.
(ii) Choosing suitable file structure for data storage.
(iii) Analysing the data required for each application.
(iv) Preparation of a data model.
(v) Preparation, modifying and maintenance of a data dictionary.
(vi) Defining hardware needs and plan for any change and internal levels.
(vii) Administrator of internal and external view of data (3 levels)
(viii) Specifies conceptual view of various users and applications
(ix) Defines and implements the internal level and storage structure
(x) Controls changes to external Global
(xi) Custodian and controller of database structure
(xii) Defines mapping between levels structures
(xiii) Okays users of the database and their dismissal.
(xiv) Fore sees the maintenance and preservation of the integrity of the database
(xv) Defines procedures to receive and recover the database system

### b) Organisational Tasks

(i) Ensuring data integrity by implementing and controlling database procedures.
(ii) Production of operating manuals.
(iii) Provision of training for users and applications programmers on a regular basis.
(iv) Assessing the ongoing performance of the database.

### Benefits/advantage of database filing systems

There are basically three major benefits from database filing system; i.e. integrity, independence and integration.

### Integrity

Database integrity means that data is kept secure and that amendments are only made as effectively authorised by the DBMS.

### Independence

The principle of independence relates the splitting of data away fro the programs that use that data.

Making this split ensures that;
♦Applications can be written and amended independently of the data they use, and
♦Amendments can be made to the data without having to amend all the different applications that use the data.

**Integration**
This refers to the maintenance of data in one location rather than spreading and possibly duplicating, that data around the organisation in separate individual databases.

## 8:3 BENEFITS OF A DATABASE MANAGEMENT SYSTEM (DBMS)

**a) Integration of data needs**
Data should be shared between the different applications using it. This can mean That different applications using the DBMS can access the same data at the same time.
**b) Data security**
Data should be accessible only to those authorised to see it, and should be capable of modification only under controlled conditions.
**c) Flexibility**
The DBMS should allow for different uses with a range of applications.
**d) Minimum redundancy**
Duplication of data should be kept to a minimum. This achieves the benefit of reduced space and avoids inconsistent data.
**e) Evolutionary capability**
The DBMS must be capable of evolving to adapt to changing organisational Needs without requiring extensive modifications to application programs.

## 8:4 DESIGNING A DATABASE

Where an organisation uses a central database, it is crucial that the database operates effectively. This requires adequate hard ware, software and personnel, but most importantly it needs a well-designed database.

The main stages in design and use of a database are as follows;
a) Analysis of information needs
b) Logical design of the database
c) Physical design and set up of the data base
d) Data entry and upkeep
e) Data retrieval and reporting
f) Monitoring and maintenance

**Analysis of information needs**
In order to identify the information needs of the organisation, a fundamental understanding of its objectives is necessary.

a) The business plans of the company provide the basis of this understanding, identifying the organisation's critical success factors (CFS) and the information that is needed for these factors to be achieved.
b) An information audit will be carried out to identify the needs of particular users and groups of users.

**Logical design of the database**
a) The information gathering process will help to determine the data required on the database for existing and foreseeable future applications. This list of data is recorded in the data dictionary.

b) The rules relating different items of data together are determined.
c) The analyst will then determine the rules relating particular application to items in the database.

**Physical design and set up of the organisation**
The rules that have been specified are then programmed to support the database management system. This procedure is so specialised that it may require a special Data Description Language (DDL).

**Data entry and upkeep**
a) Data is added (or appended) to the database. Its integrity is ensured by validation and verification checks.
b) Existing data may be changed (or amended). This process will also be subject to validation and verification (see later in next section).
c) Existing data may be deleted from the database. This is normally a two-stage process, i.e. making and then physically deleting - this ensures that only intended data is deleted.
d) A specialised language called a Data Manipulation Language (DML) may be used to carry out the processes of addition, amendment and deletion.

**Data Retrieval and Reporting**
Most database systems provide a wide variety of ways in which data may be accessed and analysed.

a) Individual records may be retrieved and inspected.
b) Items may be retrieved according to a set of specific parameters.
c) Data may be sorted or indexed on any field or combination of fields. This makes lists and other outputs easier to use.
d) Simple summarises and calculations can be carried out on the data contained in the database.
e) Report generators are supplied with many databases management packages. This enables users to summarise and report data quickly and in an easily digested format.
f) A specialised language called a Structured Query Language or SQL may be used to retrieval and report information.

## 8:5 VERIFICATION AND VALIDATION CHECKS
The verification and validation checks have been designed to deal with the common human errors as regards data entry. This is in databases, accounting systems, spreadsheets, etc. So this means that these checks do not only apply to databases but also to accounting systems, word processors, spreadsheets, etc.

Verification is the process of ensuring that the data that has been input is the same as the data on the source document.

Validation is the process of ensuring that the data that has been input has a value that is possible for that kind of data. For example there is no month with 33 days.

**Data Verification**

The most common method of verification is encouraging staff to look for errors e.g. if data is input using a key board, it will be shown on the screen and visual checks on the data can be made.

**Validation Checks**
When a validation check identifies an error, the record concerned will probably be rejected and processed no further without correction. Rejection reports or massages will be displayed on a VDU screen.
Some of the data validation checks are outlined below:

♦**Range Checks**
These are designed to ensure that the data in a certain record field lies within predetermined limits e.g. day of a month can be from 1 to 31 not 0 or beyond 31.
♦**Limit Checks**
These check that data is not above or below a certain value.
♦**Existence Checks**
These are checks to ensure that the data is valid within a particular system. E.g. Checking items in stock.
♦**Format Checks**
These help to ensure that the format (and size) of the data in a field is correct.
E.g. check that the formal is all numeric or alphabetic, etc.
♦**Consistency checks**
These involves checking that data in one field is consistent with data in another field. For example, in a payroll system, there might be a check that if the employee is a Grade C worker, he or she must belong to department 5,6 or 9.
♦**Completeness Checks**
A check can be made to ensure that all records have been processed.
♦**Check digits**
This check is used to detect especially transposition errors.
Transposition errors are those that arise when correct digits in a figure, e.g. 123,907, are unintentionary interchanged, e.g. 132, 907.

## CHAPTER NINE

## OFFICE AUTOMATION

### 9:0 INTRODUCTION
Under this Chapter we shall look at the following:
♦Spreadsheet
♦Word Processing, DTP and Graphics
♦Communication
♦The Internet

Office automation tries to analyse the application programs that are normally used in offices and office communication.

### 9:1 SPREAD SHEET

A spreadsheet is a general-purpose software package for modelling. The name is derived from its likeness to a spreadsheet of paper divided into rows and columns.

♦A spreadsheet program can help you manage personal and business cash flow analysis and forecasting. General ledger, stock records, profit projections, sales projections, etc.
♦You can use the spreadsheet to perform calculations, analyse data and present information.
♦You can store large collections of information i.e. a mailing or product list.
♦Spreadsheets program include tools for organising, managing, storing and retrieving data-through a bigger control over a list stored on your computer would need a Database program.

**Features of Spreadsheets**
Cell is one box in a spreadsheet.
Column is a vertical line of boxes or cells. Each column is identified by a unique letter e.g. a,b,c, aa, ab, aaa, aab, etc).
Row is a horizontal lie of boxes of cells. Each row is identified by a different number (e.g. 1,2,3,11,12,13,111,112, etc).

**Active cell (Current cell)**
This identifies the location of each cell in a spreadsheet. It consists of a column letter followed by a row number.

**Formula**
In a spreadsheet, a formula helps you calculate and analyse data. When entering formulas cell references or cell addresses are used. E.g. [+D2+D4] instead of typing in the actual data whenever possible.

**Calculations**
Spreadsheet programs perform calculations using the following.
* - multiply, + - Add, - - Subtract, /- divide, / exponents.

**Automatic Recalculation**
Spreadsheets have a facility where by if you change a number used in a formula, all the other figures affected by the formula will change automatically displaying the new results.

This feature is so useful if you want to evaluate possible scenarios. E.g. how differently interest rates affect your mortgage payments.

**Using parenthesis [ ]**
In a formula, a spreadsheet program will calculate the data inside the parentheses then with those outside it. E .g. +A1 * [B6/B7] + A5.

**Copying a Formula**

After entering a formula in a spreadsheet, you can save time by copying a formula to other cells. The spreadsheet program will automatically change the cell references in the new formula for you.

**Functions**
A function is a ready-to-use formula that helps you to perform calculations e.g. sum, Average, Maximum, Minimum, etc.

**Examples:**
♦SUM [D1: D4] calculates the sum of the numbers in addresses D1 to D4.
♦AVERAGE [A6: A10] calculates the average value of the lists of numbers in addresses A6 to A10.
♦MAXIMUM[A2; A7] finds the largest value in the lists of numbers in addresses A2 to A7.

Facilities offered by a spreadsheet.

**Editing**
Data can easily be copied for moved from one part of the spread sheet to another using a mouse and cut and paste or drag and drop facilities.

♦Column width, row height can also be changed.
♦Rows and columns can be inserted and most operations can be reversed.

♦Modern spreadsheets can help you complete a series, e.g. type 'Monday' - it will type the rest up to Sunday.

**Formatting a Spread sheet**
This involves changing font (type style), number appearance, boarders, shading and colour. Data alignment centre left or right, etc. You can format the entire spreadsheet or a specified range of cells.

**Charts and graphics**
Most spreadsheets contain graphic and chart facilities which enable you illustrate data using a suitable chart type.

**Sorting**
Data can be sorted alphabetically or numerically.

**File commands**
Opening, naming, saving, printing and closing the spreadsheet file are the key tasks.

Potential problems/disadvantages of spreadsheets

Spreadsheets are immensely popular and can be used for a very wide range of modelling tasks. However, because they are essentially single - user packages and because each one is designed from scratch. There are risks in their use.

a) Although users are some times trained in how to use a spread sheet, they are rarely trained in spread sheet discipline or best practice. This means that spread sheets may be badly designed, increasing the risk of errors or inefficiency.

E.g. a user may put a second large table immediately below the first, rather than diagonally offset. If he or she then deletes a column of data from the first table, then data may be unintentionally lost from the second one as well.

b) Users are unlikely to document the workings of their spreadsheet, as they consider it 'obvious'. This makes it difficult for other staff to understand use or modify the model.

c) The lack of proper audit trail can be a disadvantage. Because the user works with a spreadsheet in memory (RAM), only saving it at certain intervals, it is unlikely that a record of the intermediate stages will be maintained, even if output from the intermediate stages is important.

## 9:2 WORD PROCESSING

### WORD PROCESSORS

Word processing is the processing of text information. Typically word processing soft ware may be used for production of standard documents.

### Features of a word processor

The following are some of the features of a typical word processor.

(i) Adding headers and footers
(ii) Inserting footnotes
(iii) Using different characters fonts in a variety of services.
(iv) Changing texts to bold italic, underlined, double underlined, etc.
(v) Spell checking - for spelling errors and in some programs checking for grammatical errors.

Some word processors especially modern one have additional features not available in older word processor e.g.

(i) Adding lines or boxes in a variety of width and style.
(ii) Inserting digitised photos and artwork.
(iii) Creating charts and tables with newly entered data or by linking to data that already exists in a data file.
(iv) Drug and drop editing.
(v) Creating a table of contents or index automatically.
(vi) Main merging - where automatic formats for different types of letter may exist.
(vii) Importing data from other -programs like spreadsheets.
(viii) Compatibility - where major packages are very similar and highly compatible e.g. a WordPerfect file may be opened, edited and saved in Ms Word.

## 9:3 DESK TOP PUBLISHING (DTP)

DTP is the use of office computers to implement computerised typesetting and composition systems. They can be used for producing master pages for a book, newspapers, leaflets, etc.

### Graphics (Computer Graphics)

Another use of computers is the production of information in the form of pictures, diagrams or graphs. A widely used office package is corel draw.

**9: 4MICROSOFT ACCESS**
This is used to design data bases and create management reports.

**9:5 COMMUNICATION**
Under this topic, we shall see how telecommunication hardware is used in office work.

**Telex**
Telex is a service which enables users to transmit and receive printed message over a telephone line. Users have to be telex subscribers, with their own telex equipment and code number in order to send or receive messages.
Telex services started in the 1930's
Data transmission speeds are very slow with Telex as compared to other methods telecommunication and only restricted set of characters can be used in messages.

**Fax (or Facsimile)**
This involves the transmission of messages by a data link of exact duplicate copies of documents. The original is fed into the fax machine, which reads it and converts it into electronic form so it can be transmitted over the telephone.

It is printed by the recipient fax machine.
The latest fax machines can also be used to scan data into a PC, as printers for PC output and as photocopies.

**Electronic Mail (E-mail)**
The term 'electronic mail' or 'e-mail', is used to describe various systems of sending data or messages electronically via a telephone or data network and a central computer, without the need to post letters or place memos in pigeon-holes, etc.

**E-mail has the following advantages**
a) Speed E-mail is far faster than post or fax. It is a particular time saver when communicating with people over seas.

b) Economy (no need for stamps, envelopes, etc) it is far cheaper than fax or post.
c) Efficiency. Messages are prepared once but can be sent to thousands of employees at the touch of a button.
d) Security. Access can be restricted by the use of passwords.

**Voice Mail**
Voice mail systems enable the caller's message to be recorded at the recipient's voice mail box. It requires a telephone, and no keying or typing is necessary.
A voice mail message is basically a spoken memo.

**THE INTERNET**
The Internet is the name given to the technology that allows any computer with a telecommunications link to exchange information with any other suitably equipped computer.

Also Internet refers to the international network.

**Web sites/page**
As you are no doubt aware, most companies of any size now have a 'site' on the Net. A site is a collection of screens providing information in multi media form (text, graphics and often sound and video), any of which can be viewed simply by clicking the appropriate button, word or image on the screen.

**Internet Service Providers (ISPs)**
Connection to the Internet is made via an Internet Service Provider (ISP). The user is registered as an Internet subscriber and pays a small monthly fee together with local telephone call charges. Examples of ISPs include American On-line (AOL), Spacenet in Uganda, Uganda Telecoms, etc.

**Browsers and Search Engines**
**Browsers**
These are programs that are used to run the internet. Example is Netscape Navigator.

**Search Engine**
These are used to guide the users surfing the net examples include, Yahoo! Aita Vista.

Uniform resource locator (Website address) (URL)

Each web page has a unique address called the uniform resource locator (URL)

All you need is type in the URL for the website you want to visit and enter.
An example of URL could be like http!//w.w.w.TBC.co.ug.

| URL Element | Explanation |
|---|---|
| http!// | Hyper text transfer protocol, the portico used on the world-wide web for the exchange of documents produced in what is known as 'hyper text mark-up language (HTML). The forward slashes after the colon introduce the 'host name' such as www. |
| www | This stands for World Wide Web. As noted before, to put it simply the web (via its use of HTML), is what makes the internet user-friendly. |
| TBC | This is the domain name of the organisation or individual whose site is located at this URL. |
| Co | This part of the VRL indicates the type of the organisation concerned. The Internet actually spans many different physical networks around the world including commercial (Com or Co), schools (ac or edu) and other research networks (org, net) military (mil) net works, and government networks. |
| Ug | As you can possibly guess, this indicates that the organisation is located in Uganda commercial use of the Internet. |

**Marketing**

Organisations used the Internet to provide information about their own products and services. Customers simply log on to the appropriate website and get to know the latest products on the market and so many other things.

**Sales**

Interactive electronic purchasing is possible with the Internet, the customer simply provides details of her/his credit card on the internet along with the order. This facility is not yet very common here in Uganda but its very attractive in Europe and America.

**Distribution**
The Internet can be used to get certain products directly into people's homes. Any thing that can be converted into digital form can simply be up loaded on to the seller's site and then down loaded onto the customer's PC at home. The Internet thus offers huge opportunities to producers of text, graphics/video and sound-based products. Much computer soft ware is now distributed in this way.

**Other uses of the Internet**

**Entertainment**
A variety of quality games are available on the net.

**Information**
On the net you can have access to information of any subject imaginable e.g. newspapers, magazines, job listings, airline schedules, college prospectus, movies, etc.

**Discussion group**
You can join discussion groups on the net to meet people with similar interests. You can ask questions, discuss problems and read interesting stories.

**E-mail**
Exchanging email is the most popular feature on the Internet. You can exchange e-mail on computers around the world.

**Problems with the Internet**
Being owned by no one, there are no clear guidelines on how the internet should develop. Today you can find the good, bad and different items on the net e.g. Bible preaching and phonography.

Employees of an organisation may spend so much time on the net surfing useless sites - thus wasting the organisation's useful time.

Lack of security on the Internet is another problem. This is especially with the e-mails - information such as credit card details is not communicated comfortably.

Cost is another major problem. You need a relatively high quality PCs, which are expensive; in addition, connection fees, access time fee and web site designing fees are also high.

With much less powerful equipment e.g. a slow modern and a slow processor, gaining access to useful information becomes slow and quiet painful.

**Getting connected to the Internet**

You need specific equipment and program to connect to the Internet.

1. Computer - any type of computer, which is relatively strong.
2. Programs - you need special programs to use the Internet e.g. e-mail programs, etc.
3. Modems - you need a modem to connect to the Internet. A modem of at least 14,400 bps is recommended.
4. Telephone line.

**Other forms of the Internet**

**Intranets**
This is an internal Internet, available to individuals with in a specific organisation.

The intranet is used to provide a relatively quick and easy method of providing and information sharing system in an organisation.

**Extranets**
This is an extension of the intranet where some third party access is allowed to the internal web sites.

**Uses and benefits of the intranets**
Allowing access to databases, no matter where they are located with in the organisation.

This helps to support the obtaining and sharing of information between worker throughout an organisation as well as minimise the need to keep the data in more than one place.

An intranet will allow the creation of on-line catalogues, handbooks, and directories that can be accessed and up dated as necessary e.g. an internal telephone directory for an organisation of say 100,000 employees world wide will change on a daily basis as a new staff are hired and existing staff leave.

Intranet will save the organisation costs in terms of printing and distributing the paper based manuals and handbooks etc.

Some intranets can be linked to legacy system allowing older corporate data to be obtained and analysed along side more recent transaction data.

Information is provided in a more user-friendly format, which helps encourage the use of the internet.

Training costs are limited because users will already be familiar with browser technology from using the Internet.

**Uses and Benefits of the Extranets**
They provide on-line information for customers and suppliers provide 'added value' to the products and services provided by the organisation.

Allowing authorised buyers of the organisations' products access to information about those products to help them decide which product is appropriate for a specific use.

Linking with existing EDI (Electronic Data Interchange) applications to provide full stock control, procurement and payment systems.
Full Meanings of the words as applied in information technology/system

## LIST OF ABBREVIATIONS

| ABBREVIATION | ABBREVIATION IN FULL |
|---|---|
| 4.GL | Fourth Generation Language |
| ALU | Arithmetic Logic Unit |
| AOL | America on Line |
| AS II | America National Standard Code for Inform date Interchange |
| ATM | Automated Teller Machine |
| BASIC | Beginners All Purpose Symbolic Codes |
| BIOS | Basic Input – Output System |
| BIT | Binary Digit |
| BTM | Business Teller Machine |
| CD | Compact Disk |
| CIS | Computer Information System |
| CLS | Clear Screen |
| COBOL | Common Business Oriented Language |
| CPU | Central Processing Unit |
| CU | Control Unit |
| DBMS | Database Management System |
| DDL | Data Definition Language |
| DEEP BLUE | Computers are modern computers that are an IBM computer programmed to play Chess with the world class champion, Garry Kasorok. Programmed to make 1 million moves in a second, which defected the world chess champion in the world. |
| DEL | Delete |
| Dir | Directory |
| Disk Drives | Media where computer programme files reside |

| | |
|---|---|
| | e.g., Hard disks, floppy Disks, CD-ROM, Magnetic tapes etc. |
| DML | Data Manipulation Language |
| DOS | Disk Operating System |
| DPC | Desktop Personal Computer |
| Drives | External storage medium storage capacity more than floppy and less then hard disk drive, designed with letters D...E. |
| DTP | Desk top Publishing |
| DVD | Digital Video Disk |
| E-mail | Electronic Mail |
| EMF | Electronic Magnetic Fields |
| EPOS | Electronic Point of Scale |
| EWN | Enterprise Wide Network – Any Private Network connects all of organization CPS no matter what they run or where they are located. |
| Expansion Slots | are access slots on the C.P.U where new computer cards can be fixed when upgrading (expanding) a computer. When adding another floppy drive, adding a CD ROM Drive a higher memory chip. |
| Floppy Disks Drives. | External storage medium, less storage capacity than Hard disks drive designed with letters |
| FORTAN | Formula Transaction |
| GB | Byte |
| GUI | Graphical User Interface - medium through user interacts with a CP |
| Hard Disk Drive | Internal Storage mechanism stores most computer applications. Capacity 100MB designed work letters |
| HLL | High Level Language |
| IBM | International Business Machine |
| ILL | Intermediate Level Language |
| INTERNET | International Network |
| IRR | Internal Rate of Return |
| ISP | Internet Service Provider – Provides Internet to users who register at 15 P using other dial to dedicated access. |
| IT | Information Technology |
| KB | Kilo Bytes |
| KIPS | Kilo Instructions Per Second - its Speed |
| KISS | Keep it small Simple |
| LAN | Local Area Network |
| LLL | Low Level Language |
| MAN | Metropolitan Area Net - Work |
| MB | Mega Byte |
| MICR | Magnetic Ink Character Recognition |
| MIPS | Millions Instructions per Second |
| MODEM | Modulation Demolecular |
| MS DOS | Micro Soft Disk Operating System |

| | |
|---|---|
| Ms Excel | Micro soft Excel |
| MULT | Multiply |
| NPV | Net Present Value |
| NT | Net Work |
| OCR | Optical character Recognition |
| OS | Operating System |
| OUR | Optical Work Reading |
| PC | Personal Computer |
| PIN | Personal Identification Number |
| Ports | Are connections (sockets) on the C.P.U which a computer components (Device) like a printer, mouse, modern etc. Can be connected. |
| RAM | Random Access Memory |
| ROM | Read only Memory |
| SAN | Storage Area Network |
| SDLC | System Development Life Cycle |
| SSDM | Special Standard System Development management maintenance |
| SSM | Special Standard System Management/maintenance |
| SQL | Structured Query Language |
| SUB | Subtract |
| TCP/IP | Transmission Control Protocol/internet Protocol system used to transfer information from one computer to another. |
| UPS | Uninterrupted Power Supply |
| URL | Uniform Resource Locater |
| VAN | Value Added Network |
| VDU | Visual Display Unit |
| W.W.W | World Wide Website |
| Web Server | Software that delivers web pages and contains of web sites. |

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**AFRICA POPULATION INSTITUTE**
**ELEMENTS OF TAXATION**
PAPER CODES: **APDFA 301, APDIR 303, APDBA 301**

1. a) Explain the different sources of public finance.
   b) Discuss the different types of taxes?

2. a) Discuss the objectives of fiscal policy.
   b) Discuss the principles/ canons of taxation.

3. (a) With an illustration show and explain a regressive tax.
(b) Explain advantages and disadvantages of direct taxes.
   (c) How can countries in Africa improve on their tax base?

**AUDIT PRACTICE AND PROCEDURES**
PAPER CODES: **APDFA 302, APDPA 302, APDLPS 302, APDBA 302**

1. a) Discuss the arguments for and against audit of small companies
   b) Explain all the quality control policies that should be adopted by auditors.
   c) Discuss the different forms of review.

2. a) Explain the advantages of a standardized working paper.
   b) Describe the contents of a working paper.

3. a) Explain 5 techniques of gathering audit evidence and give an example of each.
   b) Describe the specific control procedures
   c) Discuss the auditing regulatory frameworks

**RESEARCH METHODS**
PAPER CODES: **APD(FA 303, PH 303, HR 302, IR 304, PA 304, LPS 303, SW 304, BA 303, PM 303)**

1. a) Research and experimental development comprise creative work undertaken on a systematic basis in order to increase the stock on knowledge;
Explain the different types of variables used in research.
b) Using relevant examples, explain the difference between discrete and continuous variables

2. a) Descriptive research are designed to gain more information about a particular characteristic within a particular field of study
   b) Explain how it is different from exploratory research
   c) What is the difference between a research proposal and a project proposal?

3. a) With some form of detail, illustrate the structure of a research report
   b) Examine the different forms of experimental designs
   c) Assess the different levels of data analysis.

## ENTREPRENURESHIP SKILLS AND PRACTICE

PAPER CODES: **APD(FA 304, HR 303, LPS 305, BA 304, PM 304)**

1. a) Discuss at least 3 distinctions between entrepreneurship and Intrapreneurship.
   b) Give not less than 7 conditions that favour establishment of Intrapreneurship in organizations.

2. a) Discuss the fundamental questions one would ask before buying a franchise
   b) What are the pros and cons of franchising?
   c) What 5 advantages may a firm enjoy from using venture capital financing?

3. a) Supposing you are a loans officer of a lending institution, what factors would you consider before extending a loan to an entrepreneur?
   bDiscuss the arguments for and against
   i) Buying a business?
   ii) Starting a business?

## INFORMATION TECHNOLOGY

PAPER CODES: **APD --- 105**

1. Information technology always deals with organizational need
Examine the stages involved in the systems development life cycle

2. File are used to store data and information that will be needed again in future or for the current use
   a) Explain the different data processing operation
   b) What are the features of storage and retrieval systems?

3a) With relevant examples, Analyse the different forms of security issues as used in information technology
   b) A spread sheet is a general purpose software package for modelling
      i) Explain the different applications of spread sheet
      ii) What are features of a word processor?