NATIONAL OPEN UNIVERSITY OF NIGERIA

SCHOOL OF MANAGEMENT SCIENCES

COURSE CODE: ACC316

COURSE TITLE: ANALYSIS OF FINANCIAL STATEMENT

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UNIT 1: ACOUNTING AND REPORTING CONCEPTS

CONTENT

1.0 INTRODUCTION

Financial statements possess certain qualitative characteristics that enhance the usefulness of the information they convey to a wide range of users. In this unit, we shall look at the elements and desirable qualities of financial statements. W e shall also look at the concepts of capital and capital maintenance, from the point of view of accountants. A number of these issues are covered in the framework for the preparation and presentation of statements issued by the International Accounting Standards Board (IASB).

2.0 OBJECTIVES

After studying this unit, you should be able to:

- Define a conceptual framework.
- State the purpose of the IASB framework.
- State the status of the IASB framework.
- State the scope of the IASB framework.
- State the objectives of financial statements.
- State the underlying assumptions in respect of accrual basis and going concern basis.
- Define and describe four qualitative characteristics.
- State and describe the elements of financial statements.
- Explain the concept of capital maintenance.

3.0 MAIN CONTENT

3.1 THE IASB FRAMEWORK

In July 1989, the International Accounting Standards Committee (IA SC), now replaced by the International Accounting Standards Board (IASB), produced a document titled, (or simply the “Framework”). This document sets out the concepts that determine how financial statements are prepared and the information they contain. This is why the IASB is also called the “conceptual framework”.

A conceptual framework is a clearly defined set of objectives and principles that can lead to the production of consistent accounting standards. The framework is therefore the "conceptual framework". The frame of reference from which the accounting standards are issued by the IASB is constructed.

3.2 PURPOSE OF THE IASB FRAMEWORK

The framework is expected to serve the following purposes:

(a) Assist the IASB in the development of future accounting standards and in the review of existing standards.

(b) Assist the IASB in promoting harmonisation of regulations, accounting standards and procedures, relating to the presentation of financial statements by providing a basis for reducing the number of alternative accounting treatments permitted by international accounting standards.

(c) Assist national standard-setting bodies in developing national standards.

(d) Assist preparers of financial statements in applying international accounting standards and in dealing with issues not yet covered by an International Accounting Standards (IA S).

(e) Assist auditors in forming an opinion as to whether financial statements conform to IASs.

(f) Assist users of financial statements in interpreting the information contained in financial statements that comply with IASs; and

(g) Provide those w ho are interested in the work of the IASB with information on its approach to the formulation of accounting standards.

SELF ASSESSMENT EXERCISE
Outline the purposes of International Accounting Standards Board

3.3 STATUS AND SCOPE OF THE IASB FRAMEWORK

As stated above, the framework describes the basic concepts that guide the preparation of financial statements for presentation to a wide range of users. The framework is not an accounting standard; neither does it override the requirements of any specific Standard. Thus, in the event of a conflict between the Framework and an International Financial Reporting Standard (IFRS), the latter will prevail. Such conflicts will gradually cease to exist as future accounting standards will be produced in accordance with the guidelines set by the framework.

The framework deals with the following:
(a) The objectives of financial statements.
(b) Underlying assumptions.
(c) Qualitative characteristics of financial statements.
(d) Definition, recognition and measurement of the elements of financial statements; and
(e) Concepts of capital and capital maintenance.

3.4 THE OBJECTIVES OF FINANCIAL STATEMENTS

The objectives of financial statements are to provide information about the financial position, performance and changes in financial position that will assist wide spectrum of users in making useful economic decisions. It identifies the following users of financial information: investors, employees, lenders, suppliers, customers, government and the public.
Information relating to financial position is normally found in the balance sheet of an entity, and is affected by the following:

(a) Economic resources controlled by the entity. This information will enable users to predict the ability of the entity to generate cash.
(b) Financial Structure of the entity. Users can predict borrowing needs, distribution of future profits and the ability of the entity to raise new finance.
(c) Liquidity and solvency of the entity. Users need this information to predict the ability of the entity to meet its financial commitments as they fall due.

Information on the financial of an entity is basically provided by the income statement. Such information is useful in evaluating the returns obtained by an entity from the resources available to it.

Information about changes in financial position is contained in the cash and how the cash generated is utilized.

SELF ASSESSMENT EXERCISE
What could affect the information relating to financial position in the balance sheet?

3.5 UNDERLYING ASSUMPTIONS

The Framework specifies and explains the two main assumptions that underlie the preparation of financial statements. These assumptions are the accrual basis of accounting and the going concern principle.

Accrual Basis: When financial statements are prepared under the accrual basis of accounting, the effects of transactions and other events are recognized when they occur and not as cash or its equivalent are received or paid. They are recorded in the accounting records and reported in the financial statements, of the periods to which they relate.

Going Concern Basis: Under the going concern basis, the enterprise is regarded as a going concern, that is, as continuing in operation for the foreseeable future. It is assumed that the enterprise has neither the intention nor the necessity to liquidate or reduce materially the scale of its operations.

ILLUSTRATION 1
Exotic Furniture Nig. Ltd recorded the following transactions in the first week of January 2009:

(a) Rented an office space in Port Harcourt for ₦1 million per annum and paid ₦5 million, being rent for five years demanded by the landlord.
(b) Bought office equipment for ₦240,000 on credit from Modern Business machines Ltd. The expected useful life of the equipment is four years.

(c) Received cheque of ₦1.3 million from Rivers State Polytechnic, Bori, being final payment for sales made to the Institution in 2007.
(d) Sold furniture items on credit to a local government in Rivers State for ₦4 million. The local government did not pay until the following year.

You are required to prepare extracts of the income statement and balance sheet of the company for the year ended 31 December, 2009, on the assumption that financial statements are prepared under (a) the accrual basis and (b) the cash basis accounting.

SUGGESTED SOLUTION 1

Exotic Furniture Nigeria Ltd
Income Statement for the year ended 31 December 2009 (extract)

	Accrual Basis	Cash Basis
	₦'000	₦'000
Sales	4,000	1,300
Rent	1,000	5,000
Depreciation (₦240,000 x ¼)	60	-

Exotic Furniture Nigeria Ltd
Balance Sheet as at 31 December, 2009 (Extract)

	Accrual Basis	cash Basis
	₦'000	₦'000
Property, plant and equipment	180	Nil

Under the cash basis of accounting, as can be readily seen from the suggested solution to illustration 1, the effects of transactions and other events are recognized when cash or its equivalent is received or paid (and not when they occur), and they are recorded in the accounting records and reported in financial statements of the periods in which cash or its equivalent is received or paid. This is why the sales of ₦1.3 million made in 2007 was not recorded in that year but was recorded in 2009, when the cash was received.

ILLUSTRATION 2

The values of the following noncurrent assets have been presented by the accountant of Antsa farms Ltd. The figures are in respect of the year ended 31 December 2008.

	Net book value	Market value
	₦m	₦m
Land	24	42
Plant and machinery	8	5
Equipment	4	2
Motor vehicles	6	7

What would be the carrying values of the assets in the balance sheet of Antsa Farms Ltd, as at 31 December 2008, if:
(a) Antsa farms Ltd is expected to continue its operation in the foreseeable future?
(b) Antsa farms ltd will be liquidated on 31 July 2009. Assume that the liquidating values of the company's assets are equal to the market values given above.

SUGGESTED SOLUTION 2

Antsa Farms Ltd
Carrying value of assets as at 31 December, 2008

Where going concern principle is applicable		Where going concern principle is not applicable
	₦m	₦m
Land	24	42
Plant and machinery	8	5
Equipment	4	2
Motor vehicles	6	7

Note that if the "going concern" assumption is no longer applicable, the assets of an enterprise will be carried at their liquidating values.

SELF ASSESSMENT EXERCISE

What do you understand by the following terms 'accrual concept' and 'going concern concept'?

3.6 QUALITATIVE CHARACTERISTICS OF FINANCIAL STATEMENTS

Meaning of Qualitative Characteristics

According to the Framework, qualitative characteristics are the attributes that make the information provided in financial statements useful to users. The Framework identifies four principal qualitative characteristics, namely: understandability, relevance, reliability and comparability.

Understandability

Information in financial statements should be readily understandable by users who have business, economics and accounting knowledge and willingness to study the information carefully. Although financial reports should be understandable, complex matters that are relevant to economic decision-making should not be excluded merely because they are too difficult for users to understand.

Relevance

To be useful, financial information should be relevant to the decision-making needs of users. According to the Framework, information has the quality of relevance when it influences the economic decision of users by helping them evaluate past, present or future events or confirming, or correcting, their past evaluations. Information may be considered relevant either because of its nature (e.g. employee benefit expense) or because it is material. Financial information is material if its omission or misstatement could affect the economic decisions of users. Although materiality is not classified as a threshold or cut-off point any information that fails the test of materiality need not be disclosed separately in the financial statements.

Reliability

According to the framework, information is said to be "reliable" when it is free from material bias and can be depended upon by users to represent faithfully that which it either purports to represent or could reasonably be accepted to represent. In view of the inherent difficulties in identifying certain transactions or in finding appropriate methods of measurement or presentation, financial statements cannot be perfectly "accurate", hence faithful representation might be regarded as describing the closet that accountants can come towards the absolute of total accuracy (Lewis and Pendrill, 1996).

Reliability is enhanced when the following principles are observed in the presentation of financial statements:

(a) Substance over form. Transactions should be accounted for according to their substance and economic reality even if their legal form is different.
(b) Neutrality. Information should be objective and free from bias.
(c) Prudence. Reasonable effort should be made to ensure that the position, or degree of success of an entity is not overstated (Alexander and Britton, 1996); and
(d) Completeness. Financial information must be complete, if the information is to be reliable.

Comparability

(a) Users should be able to compare the financial statements of an entity through time (that is, over a period of time), to identify trends in its financial position and performance.
(b) Users should also be able to compare the financial statements of different entities to determine their relative financial positions, performance and changes in financial positions.

To effectively compare an entity's financial information over time, accounting transactions should be consistently treated and correspondingly, information of preceding periods should be disclosed. Similarly, to compare financial information across entities, the financial statements of the different entities should comply with the requirements of a set of accounting standards and their separate accounting policies should be disclosed.

'Trade-Offs' between Qualitative Characteristics of Financial Statements

There is usually a 'trade-off' between the different qualitative characteristics discussed above. Emphasis on one of the attributes may lead to a reduction in the application of another desirable quality. Under such circumstances, it is necessary to strive to achieve an appropriate balance among the characteristics in order to meet the objectives of financial statements.

Examples of these 'trade-offs' are as follows:

(a) Timeliness. In some cases it may take some time for every detail of a transaction to be determined. In such cases, financial information cannot be presented on a timely basis if financial statements are to be reliable. On the other hand, delay in presenting financial statements may affect the relevance of the information. A balance has to be struck between the benefits of reliability and relevance. The overriding consideration should be how best the information satisfies decision-making needs.

(b) 'Trade-off' between cost and Benefit

There is also 'trade-off' between cost and benefit of preparing and presenting financial information. In principle, the benefit derived by users should exceed the cost of providing and presenting the information.

(c) 'Trade-off' between Qualitative Characteristics

'Trade-offs' may also arise between the qualitative characteristics in other circumstances. For instance, market values are more relevant but less reliable than historical costs. On the other hand, historical costs are usually not relevant for decision-making purposes.

True and fair View/fair Presentation

Financial statements are usually required to give a true and fair view, or present fairly the financial position and performance of an entity. The framework does not define these concepts but it states that the application of qualitative characteristics of financial information and compliance with appropriate accounting standards will lead to financial statements that give a true and fair view.

SELF ASSESSMENT EXERCISE
Explain the term 'Reliability'

3.7 ELEMENTS OF FINANCIAL STATEMENTS

The financial effects of transactions and events are grouped into broad classes in the Framework. These classes comprise the elements of financial statements, namely: assets, liabilities, equity, income and expenses. The first three elements are shown in the balance sheet and are used in measuring the financial position of an entity, while the last two elements (income and expenses) are used to measure the performance of an entity and are shown in the statement, otherwise known as the profit and loss account or income and expenditure account. The Framework defines the elements as follows.

(a) Assets
An asset is a resource controlled by an entity as a result of past events and from future economic benefits is expected to flow to the entity.
Note the following key terms/phrases used in the above definition:
   (i) Resource Controlled by an Entity
   An entity has control over a resource if it can direct the use of the resources for its benefit.
   (ii) Past Events
   The events should have occurred before the ownership of the asset.
   (iii) Future Economic Benefits
   The resource controlled by the entity should have the potential to contribute directly or indirectly to the receipt of cash and cash equivalents by the entity.

(b) Liability
A liability is a present obligation of the entity arising from past events, the settlement of which is expected to result in an outflow from the entity, of resources embodying economic benefits. Based on this definition, a liability is not merely an obligation; it is a present obligation. A present obligation is different from a future commitment. Other key terms include past events and outflow of an economic benefit, for example, transfer of cash or other assets by the enterprise.

(c) Equity
Equity is the residential interest in the assets of the entity after deducting all its liabilities.

(d) Income items
These have been defined by the Framework as increases in economic benefits during the accounting period, in the form of inflows or enhancements of assets or decrease of liabilities that result in increases in equity, other than those relating to contributions from equity participants.

(e) Expenses
These are decreases in economic benefits during an accounting period in the form of outflows or depletions of assets or incurring of liabilities that result in decreases in equity, other than those relating to distributions to equity participants

Recognition of the Elements of Financial Statements

Recognition Criteria
According to the Framework, recognition is the process of incorporating in the balance sheet or income statement an item that meets the definition of an element and satisfies the following criteria for recognition:

(a) It is probable that any future economic benefit associated with the item will flow to or from the entity; and
(b) The item has a cost or value that can be measured reliably.

It is necessary to note that the first recognition criterion is that the items should meet the definition of an element of financial statements.

Recognition Stages
Under the framework, the recognition of assets and liabilities fall under three stages. These are:

(a) Initial recognition
This occurs when an item first meets the definition of an asset or a liability (for instance, the acquisition of a building).
(b) Subsequent re-measurement
This involves changing the value at which an asset or a liability was initially recognized (that is, if a building is partly destroyed or when assets are re-valued by professional revaluers, the carrying values will be restated).
(c) De-recognition
This occurs when an item no longer meets the definition of an asset or liability (for instance, if the building is sold or completely destroyed).

Measurement of the Elements of Financial Statements
The Framework defines "measurement" as the process of determining the monetary amount at which the elements of financial statements are to be recognized and carried in the balance sheet and income statement. It identifies four bases of measurement, namely: historical cost, current cost, realisable (settlement) value and present value.

(a) Historical cost
Assets are recorded at the amounts of cash and cash equivalents paid or the fair value of the consideration given in exchange for them at the time of acquisition. Liabilities are recorded at the amounts of proceeds received in exchange for the obligations.

(b) Current cost
Assets are carried at the amount of cash or cash equivalent required to acquire the same or identical assets currently. Liabilities, on the other hand, are carried at the undiscounted amount currently required to settle the obligation.

(c) Realisable (settlement) value

According to the Framework, a realisable value is the amount of cash or cash equivalents that will currently be obtained by selling an asset in an orderly disposal, while "settlement value" refers to the undiscounted amount of cash and cash equivalents expected to be paid to satisfy the liabilities in the normal course of business.

(d) Present value
This refers to a current estimate of the present discounted value of the future net cash flow in the normal course of business.

The Framework does not require the application of any particular basis. In practice, historical cost is the most common basis; the other bases are applied as appropriate. For instance, stock is valued at the lower of cost and net realisable value, in accordance with the prudence concept of "not counting chickens before they are hatched".

SELF ASSESSMENT EXERCISE
State and explain the bases of measurement.

3.8 CONCEPTS OF CAPITAL AND CAPITAL MAINTENANCE

Concepts of Capital: The Framework identifies two concepts of capital: Financial concept of capital and physical concept of capital. Under the financial concept, capital is the net asset or equity of the enterprise; but under the physical concept, capital is the productive capacity of the enterprise.

Concepts of capital Maintenance: As with the concepts of capital, the framework identifies two types of capital maintenance concepts: financial capital maintenance and physical capital maintenance. Generally, capital is maintained when an enterprise has as much capital at the end of the year as it had at the beginning. Thus, financial capital is maintained when the nominal money capital at the end of the year to the figure at the beginning. Similarly, physical capital is maintained when the physical productive capacity at the year end is equal to the productive capacity at the beginning. Financial capital maintenance is sometimes classified into money financial capital maintenance (already explained above) and real financial capital maintenance which is achieved when the purchasing power of an entity's shareholders' fund is as much at the end of the year as at the beginning.

SELF ASSESSMENT EXERCISE
What do you understand by the concepts of capital maintenance?

4.0 CONCLUSION
An enterprise records a profit when its capital at the end of the year exceeds its capital at the beginning of the same year. The Framework defines "profit" as the residual amount that remains after expenses (including capital maintenance adjustments, where applicable) have been deducted from income. Any amount over and above that required to maintain the capital at the beginning of the period is "profit".

5.0 SUMMARY
This unit examined the basic concepts that guide the production and presentation of financial statements. These concepts include the objectives, elements, and attributes of financial statements, the concept of capital and capital maintenance and the IASB conceptual

framework. Financial reports that do not apply the principal qualitative characteristics of financial statements will not show a true and fair view of the financial position and performance of the reporting entity.

6.0 TUTOR MARKED ASSIGNMENT

Multiple Choice Questions

1. The principle that discourages accountants from recognising profit of an enterprise if there is no reasonable certainty that it is realisable is known as:
   (a) Profitability
   (b) Entity
   (c) Reliability
   (d) Prudence

2. One of the objectives of financial statements is to:
   (a) Encourage the shareholders to recommend appropriate dividends for themselves.
   (b) Ensure that all unrealised holding gains are included in the financial statements.
   (c) Provide information about the financial position, performance and changes in financial position that is useful in making economic decisions.
   (d) Enable companies evade payment of tax liabilities.

3. Which of these will not assist the reliability of financial information?
   (a) Timeliness of presentation
   (b) Substance over form
   (c) Neutrality
   (d) Prudence

4. Which of the following are the underlying assumptions of financial statements according to the Framework?
   (a) Accrual basis and going concern basis
   (b) Cash basis and break-up value basis
   (c) Break-up basis
   (d) Replacement value basis

5. Which of the following is not a concept of capital and capital maintenance
   (a) Circulating capital
   (b) Financial capital
   (c) Real financial capital
   (d) Monetary financial capital

Short Answer Questions

6. What do you understand by the term "conceptual framework"?

7. Sea-Glass Ltd paid N3 million for three years rent for an office apartment at Awka on 2 January 2006. During the year to 31 December 2006, the company sold goods valued at N25 million, to pay the balance on 30 January, 2007.

   You are required to show how these transactions would appear in the income statement of the company for the year ended 31 December, 2006, using the accrual basis of accounting.

8. Mary Jude Hospitals ltd has been experiencing low patronage due to increasing private medical practice. The Directors of the centre, Dr (Mrs) Mary Adesina and Dr Jude Adesina, are wondering whether the business should be closed permanently. The accountant of the enterprise has provided the following asset values relating to the year ended 31 December 2007.

	Net book value	Fair value	Market value
	₦'000	₦'000	₦'000
Plant and equipment	10,000	14,000	15,000
Furniture and fittings	2,000	1,800	2,200
Motor vehicles	4,000	3,000	5,000

You are required to state the carrying values of these assets in the balance sheet of the hospital at 31 December, 2007, if the going concern assumption cannot be applied to the company.

9. State one scope of IASB Framework

10. Briefly explain the trade-off between two qualitative characteristics of financial statements. How can a balance be achieved?

7.0 REFERENCES/FURTHER READING

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UNIT 2: COMPANY ACCOUNTS AND REPORT

CONTENT

1.0 INTRODUCTION

Financial accounting is a specialized branch of accounting that keeps track of a company's financial transactions. Using standardized guidelines, the transactions are recorded, summarized, and presented in a financial report or financial statement such as an income statement or a balance sheet.

Financial reporting is a broader concept than financial statements. In addition to the financial statements, financial reporting includes the company's annual report to shareholders, its annual report to the Securities and Exchange Commission, its proxy statement, and other financial information reported by the company.

It's important to point out that the purpose of financial accounting is not to report the value of a company. Rather, its purpose is to provide enough information for others to assess the value of a company for themselves.

2.0 OBJECTIVES

After studying this unit, you should be able to:

- State the provision of CAMA relating to company financial reporting.
- State the users of financial statements.
- Familiarize yourself with the content of financial statements
- State issues that requires notes to the accounts.
- Outline the steps in cash flow statements.

3.0 MAIN CONTENT

3.1 THE PROVISION OF COMPANIES AND ALLIED MATTERS ACT

Section 331 of companies and allied matters Act (CAMA), Cap C20 LFN 2004, states that:

(a) Every company shall cause accounting records to be kept.

(b) The accounting records shall be sufficient to show and explain the transactions of the company and shall be such as to:
   (i) Disclose with reasonable accuracy, at anytime, the financial position of the company; and
   (ii) Enable the Directors to ensure that financial statements prepared comply with the requirements of the Act with regard to form and content.

(c) The accounting records shall, in particular, contain;
   (i) Entries from day-to-day of all sums of money received and expended by the company, and the matters in respect of which the receipts and expenditure take place, and
   (ii) A record of assets and liabilities of the company.

(d) If the business of the company involves dealing in goods, the accounting records shall contain:
   (i) Statements of stock held by the company at the end of each accounting year of the company;
   (ii) All statements of stock takings from which any such statement of stock has been or is to be prepared; and
   (iii) Except in the case of goods sold by way of ordinary retail trade, statement of all goods sold and purchased, showing the goods and the buyers and sellers in sufficient detail to enable all these to be identified.

Section 334 of CAMA further states that:

(a) In the case of every company, the directors shall in respect of each year of the company, prepare financial statements for the year.

(b) The financial statements required shall include:
   (i) Statement of accounting policies;
   (ii) The balance sheet as at the last day of the company's financial year;
   (iii) A profit and loss account or, in the case of a company not trading for profit, an income and expenditure account for the year;
   (iv) Notes to the accounts;
   (v) The auditors' report;
   (vi) The directors' report;
   (vii) The Audit Committee' report;
   (viii) Cash flow statement;
   (ix) A value-added statement for the year;
   (x) A five-year financial summary; and
   (xi) In the case of a holding company, the group financial statements.

(c) The financial statements of a private company need not include the matters stated in paragraphs (i), (vii), (viii), and (ix) in sub-section (b) above.

3.2 USERS OF ACCOUNTING INFORMATION

Accounting information is required by a wide range of users for various reasons. These users and their information needs include:

(a) Individuals, financial institutions or group of investors who need accounting information to determine the liquidity, profitability and viability of the enterprise.

(b) Mangers in an enterprise require accounting information to measure performance, plan and control operations.

(c) Customers and employees of an enterprise need accounting information in order to assess the ability of the enterprise to produce goods or render services on a continuous basis.

(d) Governments and regulatory bodies, such as the Central Bank of Nigeria (CBN), Securities and Exchange Commission (SEC), Nigeria Stock Exchange (NSE), Federal Inland Revenue Services (FIRS) and State Internal Revenue Service (SIRS) need accounting information to regulate certain business and plan, execute and evaluate government projects. The Federal Inland Revenue Service (FIRS) and State internal Revenue Service (SIRS) need accounting information so as to impose and collect taxes.

(e) Quasi-government established need accounting information in order to meet their statutory obligations.

(f) Competitors need accounting information to assist in formulating policies to counter competition.

(g) Creditors need accounting information to assess companies' liquidity and ability to meet their obligations to creditors as and when due.

(h) Financial analysts need accounting information in order to facilitate comparison of a company' financial statements from year to year, evaluation of results of companies within the same industry and between one industry and the other, as well as determining the industry average.

The information expected to be provided in financial statements are those that are quantitative and qualitative in nature, to aid their users in making informed economic decisions. To meet the objectives of its divers users, some of whom may not have accounting knowledge or background, financial statements are expected to be simple, clear and easy to understand.

SELF ASSESSMENT EXERCISE
State the users of financial statements.

3.3 CONTENTS OF FINANCIAL STATEMENTS

Financial statements are expected to be drawn up:

(a) In conformity with Generally Accepted Principles (GAAP);

(b) In accordance with the Statement of Accounting Standards (SAS) issued up-to-date by the Nigerian Accounting Standards Board (NASB);

(c) In agreement with the books of accounts of the entity; and

(d) In accordance with the Companies and Allied Matters Act, Cap C20 LFN 2004. Treatment of accounting matters that are not at present covered by the Nigerian

Accounting Standards are expected to conform with the provisions of the International Accounting Standards (IAS). This is so because the Institute of Chartered Accountants of Nigeria (ICAN) is a member of International Federation of Accountants (IFAC). Consequently, ICAN members are obliged to comply with the pronouncements of IFAC. Besides, financial statements prepared in Nigeria are expected to be used globally without any problem in interpreting their contents.

All financial statements must as a matter of statutory requirement, contain the comparative figures for the preceding year (or period), to facilitate comparison of performance of the enterprise.

SELF ASSESSMENT EXERCISE
State three sources financial statements are expected to conform to.

Statement of Accounting Policies
Accounting policies are those bases, rules, principles, conventions and procedures adopted in preparing and presenting financial statements. Judgment is required in the choice of the accounting policies which are appropriate to the circumstances of an enterprise and will be best suited to present the "true and fair" view of its results and financial position. This had been dealt with in your earlier accounting courses. Therefore as a form of revision, the highlight of significant accounting policies that have to be stated in the financial statements is as follows:

(a) Accounting Convention
There should be information as to the fact that the financial statements are prepared on the historical cost basis; that is, no adjustment for specific or general price level changes such as inflation. Where there has been revaluation of some or all the assets, it should be so stated that the historical cost concept is modified to include the revaluations.

(b) Fixed Assets
Directors may decide the minimum expenditure to be recognised as capital item. It should also be stated that fixed assets are stated at cost or valuation, less accumulated depreciation.

(c) Depreciation of Fixed Assets:
1. The basis of depreciation of each class of fixed assets has to be stated. The methods which can be used included: straight-line, reducing balance, amortisation over lives of the assets, sum-of-the years digit.
2. The rate of depreciation for each class of fixed assets should be stated.

(d) Debtors
Debtors are stated after the deduction of specific or general provision for any debts considered doubtful of recovery.

(e) Stocks
Stocks are stated at the lower of cost and net realisable value, after making provision for obsolete and damaged items. For manufactured goods, 'cost' may include a proportion of factory overhead.

(f) Investments
Investments are stated at cost. Diminution in values is not taken into account unless it is considered to be permanent.

(g) Turnover: Turnover represents the net invoiced value of sales to external customers.

(h) Deferred Taxation: Deferred taxation is provided for by the liability method which represents taxation at the current rate of company income tax, and the difference between the net book value of the assets qualifying for capital allowances and their corresponding tax written down values.

(i) Foreign Currencies: transactions in foreign currencies are translated to naira at the rates of exchange ruling on the dates of the transactions.
Monetary assets and liabilities denominated in foreign currencies are translated at the official rates ruling at the balance sheet date. Exchange gains and losses are included in the profit and loss account of the period in which they arise.

(j) Employee's Retirement benefit Schemes: The company makes annual provision for retirement benefits under its unfunded pension plan, using the aggregate method based upon actual valuation. Under this method, costs related to the plan are charged over the average service lives of active employees.

(k) Research and Development: Expenditure on research is charged to the profit and loss account in the year it is incurred, while development expenditure can be capitalised if it meets certain criteria set out in IAS 38.

(l) Consolidation: (for group/holding company) the group financial statements comprise the financial statements of the company and its subsidiaries. All inter-company transactions are normally eliminated.

Balance Sheet
The balance sheet and related notes should disclose the following information:

(a) Fixed assets- property, plant and equipment
1. Land-freehold and leasehold.
2. Buildings
3. Plant and equipment
4. Other categories of assets, suitably identified, such as motor vehicles, furniture and fittings.
5. Accumulated depreciation for each class of assets.
Separate disclosure in a note form should be made of assets on lease and assets acquired on instalment purchase plans; that is, hire purchase. Such a disclosure should include the types of assets involved, their amounts and the periods covered.

(b) Other long-term assets
1. Long-term investments (quoted and unquoted) distinguished between:
    - Investments in subsidiaries
    - Investments in associated companies; and
    - Other investments
2. Long-term debts: All long term debts including their tenure
3. Intangible assets like

- Goodwill.
- Patents, trademarks and similar assets.
- Deferred charges such as: Pre-incorporation and formation expenses; and pre-production expenses and re-organisation expenses.

Any "write-offs" during the period and the market values of investments should be disclosed.

(c) Current Assets
1. Stocks and work-in-progress.
2. Current portion of long-term debts
3. Trade debts
4. Prepayments and sundry debtors
5. Directors debit balances.
6. Inter-company debit balances of subsidiaries and associated companies.
7. Short-term investments (including treasury bills, certificates of deposits and commercial notes, bills of exchange).
8. Foreign currency deposits for imports.
9. Deposits awaiting remittances to overseas creditors; and
10. Cash and bank balances.

(d) Capital and Reserves
1. The variety of ownership interest such as deferred shares, ordinary shares, preference shares, cumulative, non-cumulative, participating and non-participating preference shares, stating:
    - The number, nominal value and amount of shares authorised and issued.
    - The rights, preferences and restrictions with respect to the distribution of dividends and to the repayment of capital.
    - Cumulative preference dividend in arrears.
    - Shares reserved for future issue under options, sales contracts and options for conversion of loans and debentures into shares, including the terms and amounts; and
    - Movements in the share capital accounts during the period.
2. Other shareholders interests, indicating movements during the period and any restrictions on their capitalisation by way of bonus shares:
    - Capital redemption reserve fund.
    - Share premium or discount
    - Revaluation surplus.
    - Revenue and capital reserves.
    - Retained earnings.

(e) Liabilities
1. Long-term liabilities, distinguishing between:
    - Secured loans
    - Unsecured loans.
    - Loans from holding, subsidiary and associated companies

      Details of the applicable interest rates, repayment terms, covenants, subordinations, etc, should be disclosed.
2. Current liabilities, disclosing separately:
    - Amounts due to holding, subsidiary and associated companies.

- Trade creditors
- Other creditors and accrued expenses.
- Dividends payable
- Taxation
- Current portion of long-term liabilities
- Bank loans and overdrafts.

(f) General information to be disclosed include:
1. Restrictions on the title to assets.
2. Restrictions on the distribution of dividends.
3. Securities given in respect of liabilities.
4. The method of providing for pension or retirement scheme together with statement as to whether the scheme is funded or unfunded.
5. Contingent assets and contingent liabilities.
6. Amounts approved or committed for future capital expenditure; and
7. Events that have occurred after the balance sheet date but before the financial statements are approved by the Board.

Profit and Loss Account/Income and Expenditure Account

The profit and loss account with related notes or income and expenditure account (in the case of a company or organization, not trading for profit), should disclose the following information:

(a) Turnover/sales distinguishing between local and export sales.
(b) Other operating revenue- for example rental income or exchange gain.
(c) Other earnings- distinguishing between interest income: income from investments and other sources.
(d) Cost of sales.
(e) Gross profit
(f) Selling and distribution expenses.
(g) Administrative expenses.
(h) Interest charges.
(i) Taxes on income; and
(j) Unusual charges/credits, otherwise known as abnormal or exceptional items.
These are income items or expenditure, which although unusually large, are within the normal trading activities of the business.
Examples of exceptional items include:
1. Abnormal charges for bad debts and “write-offs” of stocks;
2. Abnormal provision for losses on long-term contracts.
3. Most adjustments of prior year taxation provisions; and
4. Shortfalls on actuarial valuation of gratuity scheme liabilities.

(k) Extra-ordinary items- these are items deriving from events or transactions outside the ordinary activities of the business and which are both material and expected not to recur frequently or regularly. Examples of extra-ordinary items are profits or losses arising from:
1. The discontinuance of a significant part of a business.
2. The sale of an investment not acquired with the intention of resale.
3. Writing off intangibles, such as goodwill, because of unusual events or development during the period; and
4. The expropriation of assets.

(l) Profit before taxation.

(m) Proposed dividend
(n) Profit after taxation
(o) Earnings per share
(p) Dividend per share

3.4 NOTES TO THE ACCOUNTS

The financial statements should be accompanied by appropriate explanatory notes to the figures in the balance sheet, profit and loss account and cash flow statement.

The Companies and Allied Matters Act, Cap. C20 LFN 2004 specifically requires the disclosure of the following information in the notes to the accounts:

(a) Directors' emolument stating:
   1. Chairman's emoluments
   2. Highest paid Director's emoluments.
   3. Directors' fees.
   4. Other emoluments; and
   5. Number of directors earning within a stated band of emoluments.

(b) Auditors' remuneration.
(c) Depreciation charged on fixed assets.
(d) Number of employees and remuneration, stating:
   1. Average number of employees during the period and the related costs; and
   2. Number of employees earning within a stated band of emoluments

(e) Capital commitments stating value of capital expenditure authorized by the Board but not executed as at balance sheet date. Amount committed out of the unspent amount should also be disclosed.
(f) Contingent liabilities, stating nature of the liabilities, and the Directors' opinion on the likely loss that may arise from the liability.
(g) Technical service agreement, stating amount payable for the period covered by the financial statements.
(h) Post balance sheet events, stating material effect the events will have on the financial statements (if any).

SELF ASSEMENT EXERCISE
State five explanatory notes that is supposed to accompany the financial statements.

3.5 REPORT

Auditors' Report
A set of financial statements must contain a signed and dated audit report certifying that:

(a) The company's books accounts have been properly kept and proper returns for purpose of audit have been received from branches not visited.
(b) The financial statements:
   1. Are in agreement with the books of accounts;
   2. Give a true and fair view of the company's affairs;
   3. Have been prepared in accordance with relevant Statements of Accounting Standards issued by the Nigerian Accounting Standards Board; and
   4. Have been properly prepared in accordance with the Companies and Allied Matters Act, Cap, C20 LFN 2004.

Directors' Report
Financial statements must contain a signed and dated report of the Board, highlighting the following:

(a) Directors' responsibilities in accordance with Sections 334 and 335 of CAMA Cap, C20 LFN 2004.
(b) Principal activities of the company.
(c) Results of the company for the period and appropriation of the profits.
(d) Changes in the Board of Directors during the period.
(e) Directors' interest in the company's share.
(f) Directors' interest in the company's contracts.
(g) Major shareholdings, disclosing shares held by individuals and organizations holding more than 10% of the company's issued share capital.
(h) Employment and employees, highlighting company's policies regarding:
    1. Employment of disabled persons.
    2. Employees' health, safety and welfare.
    3. Employees' involvement and training.
(i) Major suppliers and distributors of company's materials and products respectively.
(j) Research and development efforts of the company; and
(k) Donations and gifts by the company, stating organizations to which the company donated and amount made available.

Audit Committee's Report
In accordance with Section 359(6) of the Companies and Allied Matters Act, Cap, C20 LFN 2004, every public company is required to elect maximum of six (6) members into the Audit Committee at every Annual General Meeting to function until the next Annual General Meeting when fresh election is conducted.

Three of the members are elected by the shareholders and the remaining three elected by the Board of Directors, from the board members.

The audit Committee is required to:

(a) Review the external auditors' scope and planning of the audit requirements;
(b) Review the external auditors' memorandum of recommendations on accounting policies and internal controls, together with management responses.
(c) Ascertain that the accounting and reporting policies of the company are in accordance with legal requirements and agreed ethical practices;
(d) Recommend to the Board with regard to the appointment, removal and remuneration of the external auditors of the company; and
(e) Authorise the internal auditor to carry out investigations into any activities of the company which may be of interest or concern to the committee.

The Audit Committee is required to express an opinion on the adequacy or otherwise of the matters stated above and that they are satisfied with the management responses to the external auditors' findings.

SELF ASSESSMENT EXERCISE
Mention two reports and explain them that should be contained in the financial statements.

3.6 CASH FLOW STATEMENT

This provides information on the derivation and utilisation of funds during the period covered by the financial statements. When cash flow statement is taken together with the balance sheet and profit and loss account, better insight is obtained as to how the activities of an enterprise have been financed.

A cash flow statement should disclose the following:

(a) Cash flows from operating activities
    Profit before taxation for the period covered by the financial statements is appropriately adjusted, for non-cash items such as:
    1. Depreciation and amortization charge on fixed assets;
    2. Profit or loss on disposal of fixed assets; and
    3. Provision for unfunded pension plan.

(b) Changes in Current Assets and liabilities
    Increase or decrease in current assets and liabilities when compared to those in the preceding year is accounted for under this sub-head to reflect:
    1. Increase or decrease in stock;
    2. Increase or decrease in creditors and accruals; and
    3. Increase or decrease in foreign currency deposit for imports;
    4. Increase or decrease in creditors and accruals.

(c) Payments in connection with operations, such as income tax and retirement benefits paid during the period covered by the financial statements are deducted from the addition of (a) and (b) above, before arriving at net cash inflow or outflow from operating activities.

(d) Cash flows from investing activities
    Actual cash outflows or inflows of the following, during the period covered by the financial statements, are disclosed:
    1. Purchase of fixed assets, investment or intangible assets.
    2. Proceeds from sale of assets, investment or intangible assets; and
    3. Dividends and interests received on investments.

(e) Cash flows from financing activities
    Actual cash inflows or outflows on the following during the period covered by the financial statements are disclosed:
    1. Dividends paid to shareholders;
    2. Repayment of debenture stock; and
    3. Proceeds from issue of shares and debenture stock.

(f) Movement in net liquid funds
    The net figure arrived at by pooling together all the net figures obtained in (a) – (e) above, represents net increase or decrease in cash and cash equivalents at the beginning of the period covered by the financial statements are added to the net increase or decrease, we arrive at cash and cash equivalents at the end of the period covered by the financial statements which may consist of:
    1. Cash and bank balances;
    2. Bank overdrafts; and
    3. Investments in commercial papers and other short-term financial instruments.

SELF ASSESSMENT EXERCISE
What should be disclosed by the cash flow statement?

3.7 VALUE-ADDED STATEMENT

Value-added statement reports the additional wealth created by an enterprise on its own and by its employees' efforts during the period covered by the financial statements. It usually shows how the wealth created is distributed among various interest groups (such as, employees, government, creditors, providers of capital and that retained for the future creation of more wealth).

The concept here is the difference between the cost of inputs (bought-in materials and services) and value of outputs (turnover) is the value added by the operations of the business. The value added can then be analysed to show how it has been applied. Note that wages are not included in cost of inputs from third party (outside the business).

Thus, the statement reports the claims of social and economic groups, reaffirming the contemporary belief that enterprises do not exist for the benefit of their owners (shareholders) only; but, also for the society at large.

The statement shows separately, the following:

(a) Sales to outsiders (third parties outside the group).
(b) Purchases of goods and services: distinguishing between imported and local items.
(c) (a) and (b) above represents value added; and
(d) Distribution of value-added to various groups such as:
    1. Employees- salaries, wages and fringe benefits;
    2. Government – company income and education taxes, excise duties;
    3. Providers of finance – dividends, interest, etc;
    4. Retained for the replacement of assets and business growth:
        - To provide for depreciation of fixed assets; and
        - To augment reserves.

SELF ASSESSMENT EXERCISE
State the content of a value-added statement

3.8 FIVE-YEAR FINANCIAL SUMMARY

The five-year financial summary enables an instant comparison for an enterprise's activities over the five-year period. Information to be disclosed are as follows:

(a) Results
    1. Turnover
    2. Profit before tax
    3. Taxation
    4. Profit after taxation
    5. Dividend
    6. Retained earnings

(b) Assets Employed
    1. Fixed assets
    2. Intangible assets

3. Investments
4. Net current assets
5. Long term liabilities and deferred charges

(c) Funds Employed
1. Issued share capital
2. Share premium
3. Revaluation reserves
4. Other reserves- revenue, bonus issue

(d) Financial Statistic – (per share data)
1. Share price at the end of period
2. Earnings per share
3. Dividend per share
4. Dividend cover
5. Net worth per share
6. Return on capital employed
7. Current assets: Current Liabilities

4.0 CONCLUSION

An annual report is a document produced annually by companies designed to portray a true and fair view of the company's annual performance, with audited financial statements prepared in accordance with company law and other regulatory requirements, and also containing other non-financial information.
Directors are responsible for the preparation of the accounts which must give a true and fair view. A true and fair view is one where accounts reflect what has happened and do not mislead the readers. The accounts must be prepared in accordance with relevant accounting standards.

5.0 SUMMARY

This unit explores the statutory framework guiding the contents of financial statements as stipulated in the Companies and Allied Matters Act, Cap C20, LFN 2004. It is pertinent to note that financial statements are expected to be drawn up in conformity with the Generally Accepted Accounting Principles; in accordance with the Statement of Accounting Standards issued by the Nigerian Accounting Standards Board, and in agreement with the books of accounts of the entity. Objectives of the various users of financial statements were reviewed.

6.0 TUTOR MARKED ASSIGNMENT

Multiple Choice Questions

1. In accordance with Section 334 of CAMA, Cap, C20 LFN 2004, the financial statements of a private company need NOT include ___________
   (a) Balance sheet
   (b) Auditors' reports
   (c) Audit Committee's Report
   (d) Directors' Report

2. The Generally accepted Accounting Principles, which should be stated in a company's Accounting Policies as it relates to inventory, is that, stock should be valued at _________
   (a) Cost
   (b) Realizable value
   (c) Replacement cost
   (d) Lower of cost and net realizable value
3. Which of the following should NOT be classified as a current liability in a financial statement?
   (a) Trade creditors and accruals
   (b) Provision for staff gratuity
   (c) Dividends payable
   (d) Taxation payable
4. Which of the following items found in a company's profit and loss account is described as "Exceptional item"?
   (a) Discontinuance of a significance part of a business
   (b) Writing-off of goodwill
   (c) Substantial loss sustained as a result of robbery attack
   (d) Sale of an investment not acquired with the intention of resale
5. Directors' report in the financial statements need NOT disclose:
   (a) Results of the company for the period.
   (b) Forecast of future profitability
   (c) Principal activities of the company
   (d) Changes in the Board of Directors during the period.

Short Answer Questions

6. State one item highlighted by the Chairman's statement in a company's annual report.
7. Highlight any major difference between Auditors' report and Audit Committee's report.
8. State the information usually disclosed in form of notes to the financial statements that may not affect the figures in the accounts.
9. State one use of five-year financial summary.
10. State one report expected to be found in published financial statements of a published quoted company.

7.0 REFERENCES/FURTHER READING

Aborode, R. (2004), A Practical Approach to Advanced Financial Accounting, Lagos, El-TODA Venture Ltd.

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Institute of Chartered Accountants of Nigeria, (2004). Financial Accounting, Study Pack, Lagos.

UNIT 3 INTRODUCTION TO FINANCIAL STATEMENT

CONTENT

1.0 INTRODUCTION

In this unit, you will be introduced to financial statement and its main components. You will also be led through the discussion on how financial statement aids management in decision-making process.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Define and explain financial statement;
- Identify the main components of financial statement;
- Discuss financial statement as a tool for management decisions.

3.0 MAIN CONTENT

3.1 Financial Statement: An Overview

Financial statement is a statement that records financial activities of a particular business organisation (business enterprise). It is the book keeping and recording of source document from the early stage of business enterprise through journal entry to the ledger accounts, trial balance and then the final accounts.

In the early times, keeping financial statement was not a priority because business transactions were undertaken by means of barter system where goods exchanged for goods. With the modern economy, all transactions were monetized and therefore there was the need to keep records using money as a common denominator, hence financial recording known as financial statement. This subject is a subset of account which also emanated from economics as a discipline.

Financial statement is used for two purposes, namely: definitive purpose and information purpose. Where it is used for information purpose, it is for comparative analysis to be made between one organisation and another and within the industry.

Users of financial statement have further insight about financial strengths and weaknesses of the business enterprise if information (data) reported in the statement are properly analysed. It is therefore incumbent on the management to have interest in knowing or developing enough passion for the state of the enterprise at any point in time. This shall be possible if management uses the financial report effectively to evaluate the performance of the business and ensure that the business is suitably organised along corrective measures.

Financial statement is also used for future plans of the enterprise. The present financial data of the business is compared with the past in order to project the likely outcome of activities in the future. It is also worthy of note that financial analysis is based on the data collected from financial statement which itself is the starting point (source) of making the plans before using same for forecasting. It is also good to note that the past financial record is a prerequisite for anticipating the future.

It therefore means that financial statement is the custodian of business activity from the beginning and can be used to measure the business's progress and viability. It contains financial information required to predict, compare and evaluate an enterprise's earning ability. It is the basis for financial analysis, planning and decision-making. The financial statement is used as managerial guide and aid. It is supported on the premise that money values provide a common denominator for the varied activities of an organisation. Financial statement is an accounting report.

SELF ASSESSMENT EXERCISE 1

What is financial statement? Briefly explain its role in an enterprise.

Diagram of a Typical Financial Statement

The proforma (typical) financial statement of an enterprise is shown below. It is made up of the following:

(i) Balance sheet
(ii) Income statement
(iii) Cash flow statement.

These are prepared as final accounts for users of financial reports of the business at the end of the year.

ROI Enterprises

Balance Sheet as at 31st December 20XX	Cost	Depreciation		NBV
	N	N		N
Fixed Assets	X	X		X
Land and buildings	X	X		X
Plant and machinery	X	X		X
Furniture and fittings	X	X		X
Motor vehicles	X	X		X
Long-term Investments				X
Current Assets				
Stock				X
Trade debtors			X	
Less: Provision for bad debt			X	X
Short-term Investments				X
Prepayments				X
Accrued income				X
Bank				X
Cash				X

Less: Current Liabilities		
Trade creditors	X	
Accrued expenses	X	
Incomes received in advance	X	
Bank overdraft	X	X
Working Capital		X
Long term liability		
Bank loans		(X)
Net Asset		X
Financed By:		
Owner’s Equity		
Capitals at 1st January 19X4		X
Additional capitals introduced		
Net profit		X
Less: Drawings		X

ROI Enterprises

Income Statement for the Year Ended 31st December, 20XX

	N		N
Sales			X
Less: Sales Returns			X
<u>Less: Cost of Sales</u>			
Opening stock		X	
Purchases		X	
Purchases returns		(X)	
Carriage inwards		X	
Cost of goods available for sale		X	
Closing stock		(X)	
Cost of goods sold		X	
Wages **		X	
Cost of sales		X	
Gross profit		X	
Add: Other Incomes			
Interest received	N	X	
Rent received		X	
Commission received		X	
Discount received		X	
Decrease in provision for bad/doubtful debt		X	
		X	
Less: Expenses			
Salaries **		X	
Rent and rates		X	
Carriage outwards		X	
Increases in provision for bad/doubtful debt		X	
Depreciation		X	
Printing and stationery		X	

Discount allowed	X	
Repairs	X	
Telephone	X	
Motor expenses	X	
Loan interest	X	
Advertising	X	X
Net profit		X

** Wages should be charged in the trading account only if shown separately on the trial balance from salaries. In such circumstances, the assumption, unless you are otherwise told, is that the wage is a direct trading expense to be included in the trading account while the salary is an indirect (i.e. overhead) expense to be included in the profit and loss (P&L) account.

If only wages is shown on the trial balance, it should be charged to the P&L account unless you are otherwise told.

If both salaries and wages are combined as one item (i.e. salaries and wages) on the trial balance, it should be charged to the P&L account.

CASH FLOW STATEMENT
For the year ended 31 December 2004

	2004		2003	
	₦	₦	₦	₦
CASH FLOWS FROM OPERATING ACTIVITIES				
Profit before taxation	x		x	
Depreciation of fixed assets	x		x	
Profit/(loss) on disposal of fixed assets	x		x	
Net interest expense/(income)	x		x	
Cash flow before changes in working capital	xx		xx	
CHANGES IN WORKING CAPITAL:				
(increase)/decrease in stock & work-in-progress	x		x	
(increase)/decrease in debtors & prepayments	x		x	
Increase/(decrease) in creditors & accruals	x	x	x	x
Increase/(decrease) in gratuities & retirement benefits	x		x	
		Xx		xx
Tax paid		(x)		(x)
Net cash flows from operating activities		xxx		xxx
CASH FLOWS FROM INVESTING ACTIVITIES				
Interest received	x		x	
Purchase of fixed assets	(x)		(x)	
Proceeds on disposal of fixed assets	x	x	x	x
Net cash used in investing activities		xx		xx
CASH FLOW FROM FINANCING ACTIVITIES				
Proceeds from sale of shares	x		x	
Dividend paid	(x)		(x)	
Interest paid	(x)	x	x	x

Net cash inflow/(outflow) in financing activities	Xx	xx
Net increase/(decrease) in cash and cash equivalents	xx	xx
Cash and cash equivalents at January 1	x	x
Cash and cash equivalents at December 31	xx	xx
Cash and cash equivalent comprises of:		
Cash and bank balances	x	x
Bank deposit	x	x
Bank overdraft	(x)	(x)
	Xx	xx

Source: ICAN PACK (2004)

3.2 Main Components of Financial Statement

There are three main components of financial statement. They are as follows:

(a) Balance Sheet
(b) Income Statement
(c) Cash flow Statement

(a) Balance Sheet

Balance sheet shows the present statement of a business. The business as a single entity shows the financial condition of an accounting entity as at a particular point in time.

Balance sheet consists of assets (probable future economic benefits obtained and controlled by an entity as a result of past transactions or events). They may be physical assets such as land, buildings, stocks, or inventory. Assets may also be intangible such as trademarks, goodwill, copyright, or patent. For instance, assets are normally categorized into current and long-term. This will be discussed in detail in subsequent units.

(b) Income Statement

Income statement is otherwise known as profit and loss account. Other scholars refer to it as statement of income, statement of earnings and statement of operations. It is a summary of income and expenses, gains and losses of a business organisation and ends with the determination of net income for a specific period.

Income statement reveals the revenue (income) and expense (disbursements); hence the profit and loss is expressed with the true position of the net income. Management will have the profitability index and decision will be taken based on this.

The management can ask basic questions like "Can the present profit margin sustain the business?" "Should the business go for borrowing?" "Is the leverage position of the business alright?" "Should the company expand its operations?" "Can the business add to its human resource needs?"

The elements of income statement are:

(i) Net sales (revenue/income)
(ii)Cost of goods sold or cost of sales
(iii)Other operating revenue
(iv)Selling expenses
(v) Administrative expenses
(c) Cash flow Statement

The analysis of cash flow benefits is for short-term planning with a view to generating enough cash to settle indebtedness maturing in the near future, to pay interest on borrowing and other expenses and to pay dividends to shareholders. The enterprises can make projects of cash inflows and outflows for the near future to determine the availability of cash.

This cash balance can be matched with the needs of the business for the period and appropriate arrangement can be put in place to meet deficit or invest surplus cash temporarily. It should be noted that a historical analysis of cash flow provides an insight for the preparation of reliable cash projection for the immediate future.

On the other hand, the cash statement enables management to explain the changes in cash and cash equivalent production. Management can use cash flow statement for dividend posting, cash generated by operations, investing and financing policy.

Basic elements of cash flow include the following:
(1)Operating Activities: consist of all transactions plus other events that are not investing or financing activities. Cash flows from operating activities are generally the cash effects of transactions and other events that are added to determine the net income.

(2) Investing Activities: consist of lending money and collection of these loans and acquiring and selling investments and productive long-term assets.
(3) Financing Activities: consist of cash flows relating to liability and owners' equity. The details of these cash flow activities will be expressed in subsequent units with illustration to back them up.

3.3 Financial Statement as a Management Tool

Financial statement helps in presenting the financial to oversee the resources of the information and data of an organisation. The statement will be meaningless if they are not appropriately utilised.

Users of financial statement include managers of business, financial analysts, consultants, researchers, trade creditors, suppliers of long-term debt, bankers, investors, etc. In this course, we will concentrate on its usefulness to management as a tool for decision making.

It is the overall responsibility of management to oversee the resources of the enterprise. Financial statement presents the accounting reports with dependable financial information to guide and aid management in evaluating the performance of the business outfit. This is done through the interpretation and analysis of the financial statement, either directly or through consulting experts, within or outside the management circle.

The financial statement properly prepared forms the basis for financial planning by management. The management will, at the end, take appropriate decision on how to run the business efficiently and effectively.

Financial statement analysis helps management predict, compare and evaluate the enterprise's activities and forecast the earning ability of the enterprise. It is the financial statement analysis that will direct management on the financial condition of the enterprise as well as the statement of affairs of the enterprise at a particular moment in time.

It should be noted that in modern management, the head of financial management belongs to the management team and is always a reference point of the top management on financial issues. His/her expertise is always sort before a financial decision is made. If this is ignored, the management will not have the true and fair picture of financial position and consequence is always a negative one.

With the balance sheet, the financial position of the assets and liabilities is known and management will always be informed. Hence, it is worth of note that financial statement position and its analysis/interpretation would enable management to respond to the challenges posed by this analysis appropriately.

SELF ASSESSMENT EXERCISE
Discuss financial statement as a tool for management decision making.

4.0 CONCLUSION

We hereby conclude that the financial statement is a record of financial activities of an organisation which, when properly utilised by management, can turn out to be a great blessing to the growth of the enterprise.

5.0 SUMMARY

In this unit, we have taken a brief overview of financial statement alongside the main components like balance sheet, income statement and cash flow statement. The unit concludes with the discussion of financial statement as a tool for management decision making.
In the next unit, you will learn, in detail, about balance sheet, its preparation and use in the context of financial analysis.

6.0 TUTOR MARKED ASSIGNMENT

1. Identify the main components of financial management.
2. Discuss financial statement as a tool for management decision.

7.0 REFEENCES/FURTHER READINGS

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UNIT 4 BALANCE SHEET

CONTENT

1.0 INTRODUCTION

In the last unit, we explained financial statement, identified the main components and discussed it as a tool for management decision. This unit continues with discussion on one of the components of financial statement – Balance sheet.

The basic elements of balance will be stated along with its usage and limitations as a financial analysis tool and its preparation.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- discuss balance sheet;
- state the basic elements of balance sheet;
- identify the usage and limitations of balance sheet as a tool for in financial analysis;
- prepare balance sheet.

3.0 MAIN CONTENT

3.1 Balance Sheet

Balance sheet is a statement showing the assets belonging to an organisation offset by its liabilities and shareholders' funds. A balance sheet shows the financial condition of a firm/an entity as at a particular time.

Balance sheet indicates the state of affairs of a business at that particular time. Its function is to show the financial status of a business at a point in time. It provides a list of an enterprise assets and liabilities at a particular period.

SELF ASSESSMENT EXERCISE
What is a balance sheet?

3.2 Basic Elements of Balance Sheet

The balance sheet consists of assets (i.e. the enterprise resources), liabilities (i.e. the debts of the enterprise) and the owners' equity (i.e. owner's interest in the enterprise).
The records of assets are obtained from two major sources, namely: Owners and creditors. At any given point in time, the assets must be equal to the contribution of the creditors and owners.

The financial/accounting equation is expressed thus:
ASSETS = LIABILITIES + OWNERS' EQUITY

This is balance sheet using reported form. There is accounting form of balance sheet which is presented side by side each other.

3.2.1 Assets

Assets are valuable economic resources owned by an enterprise. They are probable future economic benefits obtained or controlled by an entity as a result of past transactions. It is defined as rights to advice potentials or rights to future benefits.

Assets are stored as cash for purchasing power (money claims e.g. receivables, dividends, etc). Tangible and intangible items sold or used in business to generate earnings.

Note:
Tangible assets include copyright, patents, goodwill, trademark and other non-physical items.

Assets are usually classified or categorized in two namely: current and non-current assets:
(1)current assets are known as liquid assets;
(2)non-current assets are known as fixed assets.

Current assets are resources of an enterprise which are in form of:
(i)cash;
(ii)will normally be realised in cash, or
(iii)conserve the use of cash in the operating cycle (one year) of an enterprise or whichever is longer (accounting year).

Current assets include:
cash, marketable securities;
-debtors (account receivables; and
-stock (inventory) of raw materials, work-in-progress and finished goods.

Non-Current (Fixed) Assets – Long-term Assets

These are long-term in nature and are held for periods longer than accounting period. They take longer than a year or an operating cycle to be converted to cash or to conserve cash.

We have tangible fixed assets like: land, equipment, furniture, etc. Depreciation on these tangibles occurs yearly thereby reducing its value by cost implication. Depreciating is a process of allocating cost but does not involve cash outlay.

There are also intangible fixed assets which represent the enterprise's rights including patents, copyrights, goodwill, franchise etc.

Current assets are listed on the balance sheet in order of liquidity, which is the ability to be converted to cash.

Cash is the most liquid asset (including negotiable cheques and unrestricted balances in checking accounts and cash in hand, (savings accounts are cash (at bank) even if it may not be released for a specific period of time).

Marketable Securities are short-term investments – embodied with their marketability at a readily determinable market price. They are held to earn a return on near-cash resources. Management resorts to convert them to cash in the current period when urgent situation arises.

Accounts Receivables are debts that are due on accounts from customers that arise from sales or services provided. They are net of allowances reflecting their realizable value and the amount is expected as collection e.g. bad debts allowance. There may be other allowances accounting for expected sales discounts given for prompt payment or for sales returns. These kinds of allowances recognise expenses in the period of sales returns, at which time the allowance is established. When the losses occur, in future, they are charged to the allowance.

There are other receivables of current assets which may result from tax refund claims, contracts, sales of assets etc. Stocks (inventories) are the balance of goods in hand example in manufacturing enterprise will include:
-raw materials;
-work-in-progress; and
-finished goods.

These are associated at lower cost or market rule. Raw materials are goods purchased for direct manufacturing of a product. They end up as part of the product. Example: to manufacture shirts, fabric, design formed pattern and button becomes raw materials.

Work-in-progress represents initial goods but not ready for sales. They consist of cost of materials, labour cost for workers directly involved in the manufacture and factory overheads (which includes cost items as rent, indirect wages and maintenance.

Finished goods and stock (inventory) ready for sales (the market). These include the cost of materials, labour costs for workers directly involved in the manufacture and factory overhead. Supplies are items indirectly used in the production of goods or services and register tapes, pencils, needles etc for the shirt factory.

Note: The costing of inventory is a difficult process. For instance, an enterprise buys two units of raw materials. The first unit costs N5.00; the second costs N7.00. If by the end of the year, the enterprise utilised only one of them, what is the cost (expense) of the unit utilised? What is the cost assigned to the unit in stock (inventory)?

There are various methods of costing e.g. first in first out (FIFO), last in first out (LIFO), average and lower-of-cost or market rule methods.

These will be elaborated in module three of this course under inventory management.

Prepaid are expenditure made in advance of the use of the services or goods. It represents future benefits out of past transactions. If insurance is paid in advance for some years, e.g. three years, at the end of the first year, two years' worth of the outlay will be prepaid. The entity can retain the right to be covered by two more years of insurance. Examples of other prepaid are: taxes, advertising, promotion cost, insurance an early payment on long-term contracts.

Long Term Assets – They are usually categorized into tangible, intangible investments and other assets.

Tangible Assets – These are physical facilities used in the business like land, building, equipment, machinery (as mentioned earlier). You will learn how to review these facilities. Land is identified at acquisition cost. Please note that land is not depreciated because land does not get used up. It contains resources that will be used up. For example, mineral deposits, forest, etc. may be depleted.

(Depletion expense at this point attempts to measure the wear and tear of these resources. It seems like depreciation but depreciation handles tangible fixed assets while depletion is concerned with a natural resource).

Buildings – These are structures at cost and the cost of lasting improvements. Building depreciates over time of their estimated usefulness.

Machinery is recorded at cost (historical/basic) plus delivery and installation and improvements material that add to the value of the life or quality of service. Machinery depreciates over its estimated useful life.

Construction in Progress – This represents cost of projects under construction and is transferred to the proper tangible asset account at completion of construction. From experience, there are always distortions when classifying this group of assets and to be on safe side, they are sometime classified as other long-term assets.

Accumulated Depreciation – As you have learnt how to review the above physical facilities, you will also learn the review of accumulated depreciation an issue related to building and machinery.

Depreciation is the process of allocating the cost of building and machinery over the periods of usefulness. The depreciation expense considered each period is accumulated in a separate account known as Accumulated Depreciation Account. This is a contra asset, subtracted from the cost of plant and equipment. This is the net amount (book value) of the asset and does not represent the current market value of the asset.

Depreciation Methods – There are a number of methods but an enterprise chooses a particular approach (for consistency) for financial statements and another for tax purposes (returns). You should note that for financial statements, an enterprise prefers to depreciate slowly (gradually). This is so because this results in the highest immediate earning with highest asset balance. The same business enterprise will want to depreciate fast for income tax returns. This is because this results in the lowest immediate earning ensuring lower income taxes.

Over the life of an asset, the total depreciation will be the same regardless of the depreciation method selected.

Three factors are normally used when calculating depreciation. They are:
(1) the cost of asset;
(2) the life-span of asset;
(3) the salvage value at the end of service.

The lifespan and salvage value is estimated as probable in service. For clarity sake, the different methods will be named as: straight-line method and units of production/service/ operation. These are most popular methods asterisks in the table below.

Illustration below shows and confirms these depreciation methods applied for financial reporting purposes by different firms (enterprises) surveyed for the 1995 edition of Accounting Trends and Techniques.

Depreciation Methods – 1991 to 1994

Methods	1994	1993	1992	1991
· Straight line	573	570	564	558
Declining balance	27	26	26	28
Sum of the year's digit	9	9	12	8
· Accelerated method – not specified	49	56	62	70
· Units of production	49	46	47	50
· Others	11	9	5	7

Source:
Accounting Trends & Techniques © 1995 by American Institute of Certified Public Accountants, Inc., p. 386. Printed with permission – Reproduced by Gibson, C.H. (1997), p. 105.

The accounting trends and techniques are crystal clear. The one with the highest application is the straight line method which is commonly used even in Nigeria and is acceptable by experts of financial interpretation like the auditors, analysts, consultants and researchers at various levels.

You will learn an illustration of this method.

The following assumptions will be made to show depreciation methods:
1. Cost of asset – N10,000,000.00
2. Estimated lifespan of asset – 5 years
3. Estimated salvage (or residual) value – N2,000,000.00
4. Estimated total hours of use – 16,000.

Straight-Line Method:

This method recognises depreciation in equal amounts over the estimated lifespan of the asset. Calculate depreciation using the straight-line method as follows:

Annual depreciation = Cost – Salvage Value divided by Estimated lifespan

= 10,000,000 – 2,000,000 divided by 5

= N1,000,000.00

The N1,600,000 (N1.6 million) depreciation amount recognised yearly for five years lifespan of the asset. The salvage (or residual) value is not depreciated.

The unit-of-production method relates depreciation to the output capacity of the asset estimated for the lifespan of the asset.

Intangible Assets – These are non-physical assets such as: copyrights, trademark, patent, etc. They are recorded at historical cost and amortised over their useful years or legal lifespan, whichever is shorter.

Current Generally Acceptable Accounting Principles (GAAP) requires amortisation for intangibles over a period that cannot exceed 40 years.

Research and development costs must be expended as incurred though this differs, according to countries. In Nigeria, Nigeria Accounting Standard Board (NASB) accepts the International Accounting Standard (IAS) which accept this.

Goodwill is from the acquisition of an enterprise for a sum greater than the physical asset value, usually as attribute of the business with unusual earning power which may have a resultant effect in form of good customer relations, a well-respected owner etc. It can be a substantial asset hence the amortisation period can ensure a material influence on income.

Patents – This is an exclusive rights granted to an investor and are valued at acquisition cost, not their future benefits.

Trademarks – This is a situation where the rights of the holder are granted. These are peculiar and distinctive names or symbols associated to the organisation.

Organisational costs are legal cost incurred when an enterprise has an asset and usually written off over a period, say five to ten years. Development costs of starting a new business fall into this category.

Franchises are legal rights of operating under a particular corporate name to provide trade name product or service.

Other Assets – these categories of assets do not fit into one of the previously discussed assets. They fall into the class of exigency and might include non-current receivables and non-current prepayments.

SELF ASSESSMENT EXERCISE
State the basic elements of balance sheet.

3.2.2 Liabilities

According to Statement of Financial Accounting Concepts No. 6, Paragraph 35, Gibson noted that liabilities are probable sacrifices of economic benefit arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Liabilities are usually classified into current or long-term.

Current liabilities are obligations with short-term liquidation within a year or operating cycle. Items of current liabilities include:

(1)Payables which is short term obligations created by the acquisition of goods and services such as accounts payable, wages payable, tax payable and notes payable;
(2) Income received in advance; and
(3) Bank overdraft.

3.2.3 Owners' Equity

Trial balance is working paper for the accountant to work out the arithmetical accuracy of entries recorded during an accounting period and makes the first step in the preparation of balance sheet. When you are to prepare a balance sheet from the inception, you should note the following points: Kritzinger and Fourie stated that:

•All items that contribute to the economic benefit of the enterprise like assets, loans and cash are shown in the balance sheet;
• Items in the balance sheet have a balance which is carried forward from year to year;
•The balance sheet follows a fixed format;
•The first section is capital employed indicating how much capital available and source of obtaining capital – capital deposit, retained earnings/profit or loans;
• The second section is employment of capital (usage) whether it is fixed assets, debtors or stock as well as debts of short-term, assets and current assets.

The balance of net current assets is the difference between current liabilities and current assets (items convertible to cash within a short period – less than a year).

The balance sheet consists of assets which are regarded as the enterprise resources, and the liabilities which constituted the debts of the firm; and owners' equity (owners' interest in the enterprise).

The assets are from two sources namely: creditors and owners. (At any point in time, the assets must be equal to the contribution of the creditors and owners). This is expressed in accounting/financial equation thus:

Assets = Liabilities + Owners' Equity

As stated above, when reporting the financial position of a firm in a balance sheet, the assets must of necessity equal the liabilities plus the owners' equity. This may also be presented side by side in account format.

Preparing a balance sheet is a two-stage process plus an informal stage based on a worksheet and a formal stage represented by the balance sheet presented as a financial statement/report.

Limitations of Balance Sheet
•Balance sheet is not an account, but only shows the balances of the accounts following the preparation of the income statement;
• Balance sheet does not set out for things other than state residual balances;
• Residual debit balances are indicated in the Balance sheet as assets. By accounting measurements to debit and credit balances described as assets and liabilities respective, the

balance sheet is often interpreted as showing the net worth of the business. (This is a misconception and in the case of corporate enterprise has given rise to controversy).

Collecting and classifying balances during the preparation of the balance sheet need not await the entry of all adjustments into different individual accounts following income statement preparation. It is usually prepared in draft form from trial balance and the finalized draft of the income statement.

When verifying balances, accounts are usually subjected to yearly audits. The purpose is to check the accuracy of the records. With this move, evidence of assets is verified alongside the existence of liabilities in various creditors' accounts. In this link, they are required to that balance sheet as well as income statement show a true and fair view of the information they are statutorily expected to portray.

Bank reconciliation statement, while preparing a balance sheet, the balance at the bank as shown in cash book must be supported by bank statement showing the balance on the last day of the accounting period.

Reconciliation statement explains the nature of the unadjusted differences between the cashbook and the bank statement in the balance sheet as shown below.

The balance of the bank according to cash book was N6,000 on the 31st of December, 2009. The bank statement balance was N6,500. The difference is explained thus:

(i)cheques received from debtors on 31st December, 2009 which were not banked until 2nd January, 2010 amounted to N250;
(ii) cheques sent to creditors on 31th December, 2009 and not presented for payment until after 1st January, 2010 amounted to N750.

Particulars	Amount
Bank Reconciliation Statement as on 31st December, 2009	
Balance at bank as per bank statement	6,500
Add: Cheques received but not lodged	250
	6,750
Less: Cheques issued but not presented	750
Balance at bank as per cash book	6,000

The importance of balance sheet for the purpose of financial reporting and investment decision-making focuses attention on the arrangement of specific groupings to aid the interpretation and the analysis of activities and results. We shall deal with this analysis in module 2, but the relationship between long-term finance and long-term investment requirements.

3.3 Assets

Balance sheet indicates the financial condition of affairs of a business at a particular moment of time. It provides list of the enterprise's assets and liabilities at the moment, benefits obtained or controlled by an entity as a result of past transactions. It is defined as the rights to service potentials or rights to future benefits.

Assets are stored purchasing power (e.g. cash). They include:
•Money claims (e.g. receivables, stock);
•Tangible (physical) and intangible items that can be sold or used in business to generate earnings.

Note: Tangible assets include: land, buildings, equipment, stock (inventory) and other physical items. Intangible assets include: copyrights, patents, goodwill, trademark and other non-physical existence items.

Assets are usually classified or categorized into two, namely:
(i)Current assets otherwise called liquid assets;
(ii)Non-current assets otherwise known as fixed assets.

Current assets are assets (resources) of an enterprise which:
(a) are in form of cash;
(b) will normally be realised in cash, or
(c) conserve the use of cash in the operating cycle (one year) of an enterprise or whichever is longer (accounting year).

Current assets include: cash, marketable securities, debtors (account receivables) and stock (inventory) of raw materials, work-in-progress and finished goods.

Current assets are listed on the balance sheet in order of liquidity – which is the ability to be converted to cash.

Cash is the most liquid asset (including negotiable cheques and unrestricted balances in current accounts and cash in hand.

Current assets are listed on the balance sheet in order of liquidity – which is the ability to be converted to cash as and when necessary.

Cash is the most liquid asset (including negotiable cheques and unrestricted balances in current accounts and cash in hand). Savings accounts are cash (at bank) even though it may not be released for a specific period of time.

Marketable securities are short-term investments embodied with their marketability at a readily determinable market price. They are held to earn a return on near-cash resources.

Management resort to convert them to cash in the current period when urgent situation arises.

Account Receivables are debts that are cash due on accounts from customers that arise from sales or services provided. They are net of allowances reflecting their realizable value and the amount is expected as collection e.g. bad debts allowance. They may be other allowances accounting for expected sales discounts given for prompt payment or for sales returns. These kind of allowances recognise expenses in the period of sales returns, at which time the allowance is established. When the losses occur in future, they are charged to the allowance.

There are other receivables of current assets which may result from tax refund claims, contracts, sales of assets, etc.

Stocks (inventories) are the balance of goods in hand. For example, in a manufacturing enterprise, inventories will include:
-raw materials,
-work-in-progress, and
-finished goods.
These are associated at lower cost or market rule.

Raw materials are goods purchased for direct manufacturing of a product. They end-up as part of the product. For instance, in order to manufacture shirts, fabric, design formal pattern and button becomes raw materials.

Work-in-progress represents initial goods which are not ready for sale.

They consist of cost of raw materials, labour cost for workers directly involved in the manufacture and factory overheads (which includes cost items as rent, indirect wages and maintenance.

Finished goods and stock (inventory) ready for sales (the market). These include the cost of materials, labour costs for workers directly involved in the manufacture and factory overhead. Supplies are items indirectly used in the production of goods or services and register tapes, pencils, etc. needles for the shirt factory.

Note: The costing of inventory is a difficult process. For instance, an enterprise buys two units of raw materials. The first unit costs N5.00, the second costs N7.00. If by the end of the year, the enterprise utilised only one of them, what is the cost (expense) of the unit utilised? What is the cost assigned to the unit in stock (inventory)?

There are various methods of costing inventories. They include:
(i) First in first out (FIFO);
(ii) Last in first out (LIFO);
(iii) Weighted average;
(iv) Average and lower of cost, or
(v) Market rule methods.

These will be elaborated in module 3 of this course under inventory management.

Prepaid expenses are expenditure made in advance of the use of the services or goods. It represents future benefits out of past transactions. If insurance is paid in advance for some years e.g. three years, at the end of the first year, two years worth of the outlay will be prepaid. The enterprise can retain the right to be covered by two more years of insurance. Examples of other prepaid expenses are: taxes, advertising, promotion cost, insurance and early payment on long-term contracts.

Fixed or Non-current Assets: These are long-term in nature and are held for periods longer than the accounting period. They take longer than a year or an operating cycle to be converted to cash or to conserve cash.

We have tangible fixed assets like land, equipment, furniture, etc. Depreciation on these tangibles occurs yearly thereby reducing its value by cost implication. Depreciating is a process of allocating cost but does not involve cash outlay or movement of cash.

There are also intangible fixed assets which represent the enterprise's rights which include patents, copyrights, goodwill, franchise, etc.

Long-term Assets – They are usually categorized into tangible, intangible investments and other assets.

Tangible assets – these are physical facilities used in the business like land, building, equipment, machinery (as mentioned earlier). You will learn how to review these facilities.
Land is identified at acquisition cost. Note that land is not depreciated because land documents not got used up. It contains resources that will be used up. For instance, mineral deposits, forest etc. may be depleted.

Depletion expenses at this point attempts to measure the wear and tear of these resources. It seems like depreciation but depreciation handles tangible fixed assets while depletion is concerned with a natural resource.

Buildings – these are structures at cost and the cost of lasting improvement. Building depreciates over time of their estimated usefulness.

Machinery is recorded at cost (historical/basic) plus delivery, installation and improvements material that add to the value of the life or quality of service. Machinery depreciates over its estimated useful life.

Construction in progress – this represents cost of projects under construction and is transferred to the proper tangible asset account at completion of construction. From experience, there are always distortions when classifying this group of assets and to be on the safe side, they are sometimes classified as other long-term assets.

Accumulated depreciation – as you have learnt how to review the above physical facilities, you will also learn the review of accumulated depreciation – an issue related to building and machinery. Depreciation is the process of allocating the cost of building and machinery over the periods of usefulness. The depreciation expense considered each period is accumulated in a separate account known as Accumulated Depreciation account.

This is a contra asset, subtracted from the cost of plant and equipment. This is the net amount (book value) of the asset and does not represent the current market value of the asset.

Depreciation methods – there are a number of methods but an enterprise could choose a particular approach (for consistency) for fine statements and another for tax purposes (returns). You should note that for financial statements, an enterprise prefers to depreciate slowly (gradually). This is because this results in the highest immediate earning with highest asset balance. The same business enterprise will want to depreciate in an increasing rate for income tax returns. This is because this results in the lowest immediate earning ensuring lower income taxes.

Please note that, over the life of an asset, the total depreciation will be the same regardless of the depreciation method selected.

Three factors are normally used when calculating depreciation, they are:
(1) the cost of asset;

(2) the lifespan of asset;
(3) the salvage value at the end of service.

The lifespan and salvage value is estimated as probable in service. For clarity sake, the different methods as: straight line method, reducing balance and units of production/service/operation. These are most popular methods asterisks in the table below.

Illustration below shows and confirms these depreciation methods applied for financial reporting purposes by different firms (enterprises) surveyed for the 1995 edition of accounting trends and techniques.

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* Accelerated method specified – not	49	56	62	70
* Units of production	49	46	47	50
Others	11	9	5	1

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The accounting trends and techniques are crystal clear. The one with the highest application is the straight line method which is commonly used even in Nigeria and is acceptable by experts of financial interpretation like the auditors, analysts, consultants and researchers at various levels.

You will learn an illustration of this method.

The following assumptions will be made to show depreciation methods:

1. Cost of assets	N10,000,000
2. Estimated lifespan of assets	5 years
3. Estimated salvage (or residual) value	N2,000,000
4. Estimated total hours of use	16,000

Straight line method: This method recognises depreciation in equal amounts over the estimated lifespan of the asset. Calculate depreciation using the straight line method as follows:

Annual depreciation = Cost – Salvage value divided by Estimated lifespan
= 10,000,000 – 2,000,000 divided by 5
= N1,600,000

The N1,600,000 (N1.6m) depreciation amount recognised yearly for five year lifespan of the asset. The salvage (or residual) value is not depreciated.

The Unit-of-production method – relates depreciation to the output capacity of the asset estimated for the lifespan of the asset.

Intangible Assets – These are non-physical assets such as copyrights, trade mark, patent etc. They are recorded at historical cost and amortized over their useful years or legal lifespan, whichever is shorter. Current GAAP – Generally Acceptable Accounting Principles requires amortization for intangibles over a period that cannot exceed 40 years.

Research and development costs must be expressed as incurred though this differs according to countries. In Nigeria, the Nigeria Accounting Standard Board (NASB) accept the international accounting standard (IAS) which accept this.

Goodwill is from the acquisition of an enterprise for a sum greater than the physical asset value, usually as attribute of the business with unusual earning power which may have a resultant effect in form of good customer relation, a well respected owner etc. It can be a substantial asset hence the amortization period can ensure a material influence on income.

Patents – this is an exclusive rights granted to an inventor and are valued at acquisition cost, not for their future benefits.

Trademarks – this is a situation where the rights of the holder are granted. These are peculiar and distinctive names or symbols associated to the organisation.

Organisational costs are legal cost incurred when an enterprise has an asset and usually write off same over a period, say five to ten years. Development costs of starting a new business fall into this category.

Franchises are legal right of operating under a particular corporate name to provide trade name, product or service other assets.

These categories of assets do not fit into one of the ones discussed previously. They fall into the class of exigency and might include noncurrent receivables and non-current prepaid.

SELF ASSESSMENT EXERCISE
Discuss the basic elements of balance sheet.

3.4 Liabilities

According to Statement of Financial Accounting Concepts No. 6, paragraph 35, Gibson noted that liabilities are probable sacrifices of economic benefit arising from present obligations of a particular entity to transfer assets or provide services to other entities in the future as a result of past transactions or events.

Liabilities are usually classified into current or long-term. Current liabilities are obligations with short-term liquidation within a year or operating cycle.

Items of current liabilities include:
(i) Payables which is short-term obligations created by the acquisition of goods and services such as accounts payable, wages payable, tax payable and notes payable;
(ii) Unearned income – these are advanced payments for services to be rendered in future time;
(iii) Other current liabilities – current obligations for settlement (payment) within the accounting year. For example, dividend, interest, insurance, advertisement, warranties, deferred taxes etc.

There are also liabilities relating to financing agreement – they may be long-term in nature but requires systematic payment of principal and interest like bonds payable, notes payable and credit agreements. There are also liabilities relating to operational obligations which include obligations arising from the business e.g. pension obligations;

(iv) Minority interest is associated with the ownership of minority shareholders in the enterprise. Note – minority interest does not reflect/represent a liability in the enterprise per se. Deferred profit on sales is another non-current liability. Redeemable preferred stock is subject to mandatory redemption requirements or has a redemption feature without the control of the issuer.

Owners' equity according to Statement of Financial Accounting Concepts No. 6, paragraph 212 noted that it is the residual ownership interest in the asset of an entity that remains after deducting its liabilities.

There are two basic categories of owners' equity, namely: paid-up capital and retained earnings. Other accounts may appear in owners' equity which are normally presented apart from paid-in capital and retained earnings. Accounts like foreign currency translation adjustments, unrealized decline in market value of investments, etc.

Owners' equity is simply called equity (the financial interest of the owners). The owners' interest is residual in nature as inferred from the definition quoted above. They reflect the excess of the enterprise's assets over liabilities. Please note that liabilities are the claims of external parties. Equity represents owners' claim against the enterprise as stated in the balance sheet though the nature of claims differ.

Time defines the difference between them as; creditors' claim is to be fulfilled within a specific period while that of owners' change the payable amount can be determined only when the enterprise is liquidated. The assets values are stated at cost, hence can be considerably different between the owners' book and the real claim at liquidation.

Owners' equity is initially on account of investors' funds, but changes with the earnings of the enterprise and their distribution pattern. The earnings/losses of the enterprise do not affect the claims of the creditor because they are not the risk bearer like the equity owners. Owners' equity will increase when the enterprise makes more earnings and part is retained. Any losses by the enterprise will reduce the claims of owners, the risk bearers.

Owners' equity can be referred to as shareholders' equity or shareholders' funds. I here again reiterate the point that owners' equity has two parts: paid-up share capital and retained earnings/or revenues and surplus.

Pandey (2005) defined paid-up share capital as the amount of funds directly contributed by the shareholders through purchase of shares and that reserves and surplus or retained earnings are undistributed (book) profits. The net worth is paid-up share capital, reserves and surplus.

4.0 CONCLUSION

In this unit, you have the conclusion that the balance sheet is a financial statement of an enterprise's assets, liabilities and equity on a specific date.

5.0 SUMMARY

In this unit, you were taught of balance sheet as a financial statement and basic element, its preparation, uses in the context of financial analysis were learnt alongside its limitations. In the next unit, you will learn how to prepare income statement and its uses as a financial statement.

6.0 TUTOR MARKED ASSIGNMENT

1. What is the use of balance sheet in financial analysis of an enterprise?
2. Identify the limitations of balance sheet as a financial analysis tool.

7.0 REFERNCES/FURTHER READINGS

Pandey, I.M. (2005). Financial Management. New Delhi: Vikas Publishing House PVT Limited.

Glautier, MWE and Underdown (1978). Accounting Theory and Practice. London: Pitman Publishing Limited.

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UNIT 5 INCOME STATEMENT

CONTENT

1.0 INTRODUCTION

The Income statement is another aspect of financial statement which is considered important because it measures the financial strength of an enterprise. It is used to state the income (revenue), earnings and operational expenses of an enterprise. This unit will discuss income statement, its usage, basic element, limitations and preparation.

2.0 OBJECTVES

At the end of this unit, you should be able to:

- discuss income statement and state its usage;
- explain the basic elements of income statement;
- identify its limitations.

3.0 MAIN CONTENT

3.1 Income Statement

This is a record of all income and expenditure with which the enterprise conducts business activities in the period under review. It is designed to measure the results of transactions which have taken place between two balance sheet dates. It is a summary of all transactions which take place during a period. It shows the result of operations for a period of time.

3.2 Basic Element of Income Statement

A simple multiple-step income statement lists all gains, and then list all expenses and losses. Many firms use this single-step income statement with total expenses and loss items deducted from total revenue and gain items to determine the net income.

It is worthy to emphasise that income statement summarises the revenue and expenses and gains and losses of a business organisation, and ends with the net income for a specific period.

The elements of income statement are:
(i) Net sales (revenue) or income – sales here stands for revenue from goods and services sold to customers. The firm earns revenue (income) from the sale of its main products;

(ii) Cost of goods sold or cost of sales – this is the cost of goods sold to obtain revenue. You need to develop a sales mind to capture this explanation. That is, for a retailing enterprise, the cost of goods sold equals beginning inventory plus purchases minus ending stock (inventory).

(iii) Other operating revenue (income) – this depends on the operations of the business which may bring about royalties and lease revenue (income);

(iv) Operating expenses – this is made up of two types, namely: selling and administrative.

Selling expenses is a product of the enterprise's effort to create sales, including advertising, labelling, packaging, sales supplies, sales commission, etc. Administrative expenses emanates from the general administration of the enterprise's operation. These include office salaries, insurance, telephone (communication, ICT), bad debt expenses, and other cost which is not easily pinned down;

(v) Other income and expenses are mostly secondary (ancillary) activities not directly related to the operations of the business enterprise like rented warehouse in a producing enterprise. This lease will be other income, interest expense fall into this category of expense.

Sample of an Income Statement
Income Statement for the Year Ended 31st December, 20XX

	N	N
Sales		X
Less: Sales Returns		(X)
		X
Less: Cost of Sales		
Opening stock	X	
Purchases	X	
Purchases returns	(X)	
Carriage inwards	X	
Cost of goods available for sale	X	
Closing stock	(X)	
Cost of goods sold	X	
Wages **	X	
Cost of sales		X
Gross profit		X
Add: Other Incomes Interest received		X
Rent received		X
Commission received		X
Discount received		X
Decrease in provision for bad/doubtful debt		X
		X
Less: Expenses		
Salaries **		X
Rent and rates		X

Carriage outwards	X
Increases in provision for bad/doubtful debt	X
Depreciation	X
Printing and stationery	X
Discount allowed	X
Repairs	X
Telephone	X
Motor expenses	X
Loan interest	X
Advertising	X
	X
Net profit	X

3.3 Usage of Income Statement

Income statement shows the earning capacity of an enterprise. With it, the potential of an enterprise is known. It is the scoreboard of performance during a period of time for a business enterprise. It shows the result of operations for a period of time. It is not a stock or status statement. With it the position of assets, liabilities and owners' equity at a point of time is not known.

3.4 Preparation of an Income Statement

Preparing an income statement starts with the extraction of a trial balance at the close of the accounting period as noted earlier in Unit 2 in the preparation of balance sheet (the two instruments are related to each other) is the basic step. You are required to have the knowledge of the role of the trial balance at this level of learning in Financial Accounting course earlier.

Just like the preparation of balance sheet in the last unit of this course, income statement is a two-stage exercise. The first is an informal one which consists of a worksheet for accumulating all the data incorporating the various adjustments. After the trial balance has been adjusted, certified and confirmed, the adjustments are then put in the appropriate accounts.

At this point, income statement is formally included in the accounting system. It is important at this point for you to recall that the income statement is an account to which the revenue and expenses accounts for the accounting period are transferred as summary, which exists mainly for the aim of measuring the accounting income for that period. As operational statement, a lot of adjustments have to be carried out from time to time as will be shown in accruals, asset values etc. to arrive at periodic income.

3.5 Limitations of Income Statement

The limitations of income statement are based on the fact that it is part of the accounting system (financial statement). It depends on other financial procedures to succeed. From the point of documentation, trial balance arrangement to its preparation and the effects of the balance position of the last and the preceding balance sheet will influence the end result of the true income statement.

As a financial statement, it requires interpretation because of the dynamic nature of business transaction and recording. The timing of events and the economic factors influence the posture of the income statement variables for any given period. It is always in done in conjunction with balance sheet position to analyse the financial performance of any enterprise. It cannot explain the changes in assets, liabilities and owners' equity.

4.0 CONCLUSION

You have learnt the use of income statement as an important part of financial statement used to state the income and expenditure of an enterprise. You also learnt about its preparation.

5.0 SUMMARY

The summary of this unit involves discussion of income statement, its basic elements, usages as well as the limitation in financial analysis.

The simple procedure in preparing income statement along with necessary adjustments was also explained.

6.0 TUTOR MARKED ASSIGNMENT

1. Explain the basic elements of income statement of an enterprise.
2. Discuss the role of income statement of a business concern.

7.0 REFERENCES/FURTHER READINGS

Pandey, I.M. (2005). Financial Management. New Delhi: Vikas Publishing House PVT Limited.

Glautier, MWE and Underdown (1978). Accounting Theory and Practice. London: Pitman Publishing Limited.

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UNIT 6 CASH FLOW STATEMENT

CONTENT

1.0 INTRODUCTION

Cash flow statement is the other aspect of financial management that complements the role of balance sheet and income statement. Its analysis explains the changes which focus on cash. It is prepared based on the concept of cash which include short-term instruments mainly for current (immediate) planning. We will define and explain cash flow statement, discuss its basic element, identify its usage and how it is prepared.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- define and explain cash flow statement;
- discuss the basic elements of cash flow statement;
- highlight its usage;
- prepare cash flow statement.

3.0 MAIN CONTENT

3.1 Cash Flow Statement

This is an aspect of financial statement which provides useful information about a business organisation activities in generating cash through its operations to settle debt, distribute dividends, or reinvest such funds in order to maintain or expand the operating capacity of the business financing activities (be it debt or equity; and about its investing or spending of cash). The statement is the base for the analysis of cash flows which is useful for short-term planning. In principle and practice, every enterprise needs enough cash to settle its indebtedness that matured in the near future, pay interest as they fall due, pay dividends and other expenses.

The enterprise can project cash flows and outflows for the near future to determine cash available. This cash balance can then be matched with the enterprise's need for cash for the period and subsequently arrange to meet the deficit or cash surplus is temporarily invested.

At this juncture, you should note that a historical (book-keeping records) analysis of cash flows makes way for a reliable cash flow projections preparation for the immediate future.

This is a financial position that changes based on cash and 'near' cash (immediate liquidity). It summarises the causes of changes in cash position between dates of last and proceeding balance sheets. (Cash flow statement is similar to fund flow statement, the only dissimilarity is the emphasis on 'cash'). In short, cash flow statement summarises the flow of cash in and out of the enterprise over a period of time.

3.2 Basic Elements of Cash Flow Statement

The basic elements of cash flow statement include the following main activities headings:

(a) Operating activities
Operating activities consist of all transactions plus other events that are not investing or financing activities.

Cash flows from operating activities are generally the cash effects of transactions and other events that is added to determine net income such as: typical cash inflows and typical cash outflows.

(b) Investing activities
Investing activities consist of lending money and collecting on these loans and acquiring and selling investments and productive long-term assets such as: typical cash inflows and typical cash outflows.

(c) Financing activities
Financing activities consist of cash flows relating to liability and owners' equity including typical cash inflows and typical cash outflows.

3.3 Sources and Uses of Cash

Pandey (2005) stated the sources of cash as follows:
· the profitable operations of cash;
· decrease in assets (except cash);
· increase in liabilities (including bonds);
· sales proceeds from shares issued.

It also stated that the uses of cash are:
· the loss from operations;
· increase in assets (except cash);
· decrease in liabilities (including redemption of bonds);
· redemption of redeemable preference shares;
· cash dividend payment.

(i) Cash flow statements are useful by focusing on cash flows in a business enterprise. It helps in explaining the nature of the financial activities affecting cash inventory. For instance, if an enterprise had a balance of Nx at the beginning of the accounting year and Ny at the end, the cash flow statement will show the reason for the difference.

(ii) Cash flow statements are required for financial planning. In budgeted cash flow statements, a vital element in budgetary planning indicates cash surpluses and shortfalls from budget plans. These surpluses and shortfalls are expressed over the planning period and management will be expected to deal with the forecasted cash surplus or deficit. {The former involves a short-term investment surplus cash while the latter is a short-term borrowing arrangement (overdraft or short-term credit facility by banker)}.

(iii) Cash flow statements contrast the enterprise's earning capacity with its spending activity. Income statement is restricted by financial conventions to matching periodic revenues with the cost of earning those incomes (revenues). On the part of cash flow statement, there is no restriction in this approach. Therefore, it provides an extended view of the financial inflows and outflows by including both capital and revenue flows. In the inference, borrowings and capital injections and proceeds from assets realisation are incorporated with the cash generated from sales to give a more complete idea of financial inflows. Such as loans repayment, capital expenditure, dividends and taxation are incorporated with revenue expenses to give a more complete picture of financial outflows.

3.4 Cash Flow Management

The analysis of cash flow benefit is for short-term planning. With enough cash to pay indebtedness maturing in the near future to pay interest, other expenses and to pay dividend to shareholders. The enterprise can make projects of cash inflows and outflows for the near future to determine the availability of cash.

This cash balance can be matched with the cash required for the business for the period and appropriate arrangement can be put in place to meet deficit or invest surplus cash temporarily.

Please note that a historical analysis of cash flows provides insight to the preparation of reliable cash flow projection for the immediate future.

On the other hand, the cash flow statement enables management to explain the change in cash and cash equivalent position. Management can use cash flow statement for dividend policy, cash generated by operation, investing and financing policy.

3.5 Preparation of Cash Flow Statement

The first thing to note is that the main thrust of cash flow statement is to reconcile the opening balance with the closing balance of cash at the end of an accounting period. Hence, we start with balance at the beginning of the year.

Cash flow statement is concerned with cash transactions and does not distinct whether they are of revenue or of a capital nature. Cash flow does not involve adjustments like income statement.

The form and content of a cash flow statement and its purpose may be seen in the light of the following:

Illustration:
The income statement for the year ended 31st December, 2009 showed that a trading stores made a profit of N18,000,000. The bank balance had reduced from N10,000,000 at the beginning of the year to N3,000,000 at the 31st December, 2009. By this adverse situation, the entrepreneur requested the Financial Manager for an explanation of the reduction in the cash balance. The analysis of cash receipts and payments in the year is summarised as cash movement thus:

Cash Receipts:	N'000	N'000
Cash receipts from sales and debtors		145,000
Loan raised for expansion		20,000
Cash Payments:		
Purchases of goods and payment to credits	109,000	
Payment of wages and salaries	10,000	
Payment of interest and bank charges	1,000	
Expenditure on extension of premises	30,000	
Payment for new fittings	5,000	
Cash withdrawn by the entrepreneur	10,000	
Payment of miscellaneous expenses	7,000	(172,000)
Excess of cash payment over cash receipts in the year		(7,000)

From the above presentation, a cash flow statement for the period (year) can be prepared to explain the change in the net cash balances at the beginning and end of the financial period. Notwithstanding, in order to produce a cash flow statement which will enable cash position to be known, the analysis of cash receipts and payments are to be re-arranged and classified to indicate the causes of the cash receipts and the purposes for which cash was expended.

At this point, you are advised to segregate cash flows associated with current operations from cash flows connected with capital items and this shown below.

For financial analysis, by cash flow statement, the explanation of the fall in the bank balance from 10 million to N3 million despite recording a profit of N18 million is to be in the capital expenditure incurred during the year. Hence, total capital expenditure amounting to N35 million was financed by N20 million loan and N18 million from the cash flow generated by current operations. The difference of N7 million had to be found from available cash in the bank account.

Cash Flow Statement for the year ended 31st December, 2009

	N'000	N'000
Bank balance as at 1st January, 2009		10,000
Net cash flows from current operations		
cash receipts from sales and debtors		145,000
Less:		
Purchase of goods and payments to creditors	109,000	
Payment of wages and salaries	10,000	
Payment of interest and bank charges	1,000	
Payment of miscellaneous expenses	7,000	127,000
	18,000	

Less:

Payments from profits to owner	10,000	
Cash flow fro current operation available for capital purposes	8,000	
Net cash flows on capital items cash obtained by loan	20,000	
Cash obtained by loan	28,000	
Less:		
Expenditure on extension to premises	30,000	
Payment for new fittings	5,000	35,000
Excess of cash payments over cash receipts during the year		7,000
Bank balance as at 31st December, 2009		**3,000**

4.0 CONCLUSION

You have learnt about cash flow statement which is the third and final part of financial statement that assists in the analysis of changes in cash position of an enterprise during a given period of time.

5.0 SUMMARY

In this unit, we have discussed cash flow statement showing the basic element, highlight of its usage in financial analysis and the preparation procedure of same.

6.0 TUTOR MARKED ASSIGNMENT

1. Explain the sources and uses of cash in an enterprise.
2. Name with explanation the three categories of cash flows that make up the cash flow statement.

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MODULE 2 FINANCIAL RATIOS ANALYSIS

UNIT 1 LIQUIDITY RATIOS

CONTENTS

1.0 INTRODUCTION

Financial ratio is a proportion or fraction or percentage expressing the relationship between one item in a set of financial statements and another item in the same financial statements. Financial ratios are the most powerful of all the tools used in the analysis of financial tools, with empirical approach. In this unit, you shall learn liquidity ratio analysis the definition, computation, types and the analysis of the short-term debt payment ability.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Define and explain liquidity ratio.
- Identify the different types of liquidity ratios and state their usage
- Compute the different liquidity ratio.

3.0 MAIN CONTENT

3.1 Liquidity Ratio – Definition

This is a tool generally used to express the extent to which a business can meet its short-term obligations as at when due. When an enterprise owes short-term debts (bills – water electricity etc.) the liquidity is the loop to show the capability.

3.2 Types of Liquidity Ratio

Liquidity position is assessed with the following:

1. Current ratio
2. Quick (Acid-test) ratio
3. Cash ratio
4. Net working capital ratio

3.2.1 Current Ratio

This ratio compares all current assets with current liabilities in the financial statement and indicating the ability of an enterprise's ability to meet its short-term obligation with its current assets.

Current ratio = Current Assets /Current Liabilities
A low current ratio indicates that the enterprise may not be able to pay its future bills on time especially, if a it is slow in debt collection. A high current ratio indicates an excessive amount of current assets and management's inability to utilize the enterprise's resources effectively.

To be able to withstand the sudden adverse consequences of such eventualities and reduction of creditors (or exceptional ants of bad it debts) is necessary to ensure that it is necessary that the current assets adequately cover the current liabilities.

To determine whether this ratio is high or low or just right, comparisons should be made with current ratio of previous periods and of similar businesses. As a general rule (convention) a current ratio 2:1 is accepted as ideal. This ratio is regarded as industry average. A comparison with this should be made to determine typical current ratio for similar firms.

In some other industries, a current ratio slightly or substantially below 2 is adequate, while other industries require a much larger ratio. In general, the shorter the operating cycle of a business, the lower the current ratio. The longer the cycle, the higher the current ratio.

A comparison of the firm's current ratio with prior periods, and a comparison with industry averages, will help to determine if the ratio is high or low. These comparison do not indicate why it is high or low.

Possible reasons can be found from analysis of the individual current asset and current liability, a/c often found in a detailed analysis of a/c receivable and inventory stock.

3.2.2 Quick (Acid Test) Ratio

This ratio expresses the relative amount of cash and other assets that can be easily converted to cash that are available to meet current liabilities. This is a more conservative measure of liquidity as only liquid assets are considered. It excludes stocks (inventory) from current assts. The ratio emphasizes more on assets easily converted into cash (or to a reasonable period without loss of value.

Therefore, stocks are deducted from current assets used in the current ratio above. (In practice, an analysis of debtors is performed to enable debtors' balances which are doubtful of recovery will be deducted from the current assets – for examination purposes this is avoided).

Quick (Acid Test) ratio = Current Assets – Stock (inventory) divided by Current Liabilities

As a general rule quick ratio is 1:1 is accepted as ideal.

You should note the striking difference as a financial analyst that the current ratio evaluates an enterprise's overall liquidity position considering current assets and current liabilities. On the contrary, the quick (or acid-test) ratio relates the more liquid assets to current liabilities.

The usual guideline for the acid-test ratio is 1. A comparison should be made with the enterprise's past acid-test ratios with major competitors and the industry averages. Some industries find that a ratio less than 1 is adequate, while others require a ratio greater than. For example, a grocery store may sell only for cash and not have receivables. This type of business can have a quick ratio which is below the 1 guideline and still have adequate liquidity.

It also worthy of note that before computing quick ratio, compute debt (at receivable) turnover for this should help you form an opinion of the quick ratio.

3.2.3 Cash Ratio

This ratio examines cash and its equivalent (marketable securities) in relation to current liabilities. It measures most liquid asset of an enterprise by considering only cash and marketable securities in the current asset (numerator).

Cash ratio = Cash + Marketable Securities divided by Current Liabilities

Cash ratio is an analyst need to view the liquidity of an enterprise from an extremely conservative view point. For example, the enterprise may have pledged its receivables and its stock (inventory) or he/she suspects severe liquidity problems with stock (inventory) and receivables. The best indicator of the enterprise's short-term liquidity may be the cash ratio.

Observation

You should note that cash ratio analyst seldom give the ratio much weight when evaluating liquidity of an enterprise because it is not realistic to expect an enterprise to have enough cash equivalents and marketable securities to cover current liabilities. If an enterprise depends on cash equivalents and marketable securities for its liquidity its solvency may be impaired.

Financial analysts should consider the cash ratio of enterprises that have natural show-moving inventories and receivables and enterprises that are highly speculative. For instance, a land development company in Lagos may sell lots paid for over a number years by instalments.

The cash ratio indicates immediate liquidity of the firm. A high cash ratio indicates that the enterprise is not using its cash to its best advantage. It is pertinent to put cash to work in the enterprise operation.

A cash ratio that is too low could indicate an immediate problem with payment of bills.

3.2.4 Net Working Capital (NWC) Ratio

Working capital is defined as the excess of current assets over current liabilities and is regarded as being available for supporting current operations.

Net working capital is the difference between current assets and current liabilities excluding short-term bank borrowing. It is sometimes used as a measure of an enterprise's liquidity. This is done by considering that between two firms, the one having the larger Net Working Capital has the greater ability to met its current obligations. This nevertheless measures the enterprise's potential reservoir of funds. This relationship to net assets or capital employed can be expressed as

NWC ratio = NWC/NA

Where NWC = Net Working Capital
NA = Net assets.

Illustration:
To analyze an enterprise's financial position will depend on the users- internal and external, in the financial ratio they find appropriate. For example, short term creditors are basically interested in the firm's short term performance and its liquid assets that can provide a ready source of cash to meet near term enterprise cash requirements. In addition to cash, such assets include:-Marketable securities, accounts receivables and inventories- all which could be sold for cash or become cash in the normal course of business. Long term creditors and shareholders, on the other hand, are concerned with long term and short term outlook of the outfit. Management uses ratios to gauge its own performance.

Using example financial statement below, we will compute the ratios that are especially useful in financial analysis. It will express how useful financial ratios are in actual business and when the necessary information for computing ratios can be found.

Statement-1 EUA Co. Ltd -Balance Sheet as at December 31, 2010

Assets	N	Liabilities	N
Cash	70,000	Accounts payable	150,000
Marketable securities	30,000	Note payable to bank (8%)	200,000
Accounts receivable, net	450,000	Accruals	20,000
Inventories	350,000	Income tax payable	80,000
Total current assets	900,000	Total current liabilities	450,000
		Mortgage Bonds (6%)	150,000
Gross plant and equipment	2,100,000	Debenture (7%)	400,000
Allowance for depreciation	(500,000)	Total liabilities	1,000,000
Net plant and equipment	1,600,000		
		Shareholder's equity	
		Ordinary Shares	500,000
		Retain earnings	1,000,000
		Shareholder's equity	1,500,000
Total assets	2,500,000	Liabilities plus equity	2,500,000

The annual sinking fund contribution is N25,000

Statement-2 EUA Co. Ltd –Income Statement for the year ended December 31, 2010
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	N	N
Net Sales		5,400,000
Cost of goods sold		4,400,000
Gross Margin on sales		1,000,000
Operating expenses:		
Selling	400,000	
General and Administrative	130,000	
Lease payment	20,000	
Total operating expenses		550,000
Operating income		450,000
Other revenues- Interest on Marketable Securities + royalties		3,000
Operating income plus other revenues		453,000
Less other expenses:		
Interest on bank note	16,000	
Interest on mortgage	9,000	
Interest on debentures	28,000	
Total interest		53,000
Net income before taxes		400,000
Income taxes (at 50%)		200,000
Net after tax income available to ordinary shareholders (net profit)		200,000
Dividends		30,000
Increase in retained earnings		170,000

It should be noted that any attention given to ratio in form of analysis reflects a particular aspect of the company; though it is usually not sufficient. That particular ratio and what it indicates must be viewed in the context of other ratios and other facts concerning the organization.

Statements 1 and 2 above show the balance sheet and income statement of EUA Company Ltd for the year ended December 31, 2010. The ratios describing EUA's financial condition have been calculated from the data of these two statements and are shown in the Table 1 below and listed in column 5.

Table 1 EUA Co. Ltd

Ratios	formula	industry average	appropriate ratio	actual ratio
(1)	(2)	(3)	(4)	(5)
(a) Liquidity:				
1) Current	$\frac{\text{Current assets}}{\text{Current liabilities}}$	2.4	2.6	2.0
2) Quick	$\frac{\text{Current asset – inventory}}{\text{Current liabilities}}$	1.2	1.7	1.22
(b) Leverage:				
3) Debt	$\frac{\text{Total debt}}{\text{Total assets}}$	.45	.4	.4

5) Times Interest Earned	Earnings before taxes+ interest / Interest charges	6	6.5	8.55
6) Fixed-Charges Coverage	Income available for fixed charges / Fixed charges	3.2	3.5	3.85
(c) Activity:				
7) Inventory turnover	Cost of goods sold / Average inventory	5	9	11
8) Average collection Period (days)	Average accounts receivable / Average sales per day	56	46	30
9) Fixed asset turnover	Sales / Fixed assets	11	10	3.375
10) Total asset turnover	Sales / Total assets	7	6.5	2.16
(d) Profitability				
10) Net operating margin, %	Operating income / Sales	5	6	8.33
11) Profit margin on sales, %	Net profit / Sales	2.6	3	3.7
(e) Investment				
(12) Return on Total assets, %	Net after tax income + interest / Total assets	8	9	10.12
(13) Return on net worth, %	Net profit / Shareholders' equity	9.5	11	13.33

Table 1 above shows ratios in column 3 considered average the industry. Column 4 shows ratios which EUA must meet under prevailing situation if it is to maintain its aggressive and innovative policies and still remain financially healthy and attractive to entrepreneur, investors and creditors. In summary, you will be led through demonstrating actual calculation of the values of the ratios in column 4 considered suitable for EUA's particular circumstance.

(a) Liquidity:

1) Current

$$= \frac{\text{Current assets}}{\text{Current liabilities}} = \frac{\text{N900,000}}{\text{N450,000}} = 2$$

2) Quick

$$= \frac{\text{Current asset – inventory}}{\text{Current liabilities}} = \frac{\text{N900,000 –N350,000}}{\text{N450, 000}} = 1.22$$

(b) Leverage:

3) Debt

$$= \frac{\text{Total debt (= total liabilities)}}{\text{Total assets}} = \frac{\text{N1.0 million}}{\text{N2.5 million}} = .4$$

4) Times = Earnings before taxes+ interest =N400,000+ N53,000 = 8.55
Interest charges (interest) N53,000
Earned

5) Fixed- = Income available for fixed charges =
Charges Fixed charges
Coverage

= operating income+ lease payments+ other income
Interest+ lease payments+ before- tax sinking fund contribution

=N450,000 +N 20,000 + N3,000 = N473,000
N 53,000 + N20,000 +N 50,000 N123,00 = 3.85

(c) Activity:

6) Inventory turnover= Cost of goods sold = N4,400,000 = 11
Average inventory N400,000
(Average inventory for the year= N450,000+ N350,000 /2 = N400,000)

7) Average collection = Average accounts receivable = N450,000 = 30 days
Period (days) Average sales per day N15,000/day

(Average sales per day = annual sales/360days = N5,400,000 /360days = N15,000/day)

8) Fixed asset turnover = Sales = N 5,400,000 = 3.375 (or 3.4)
Fixed assets N 1,600,000

9) Total asset turnover = Sales = N5,400,000= 2.16
Total assets N2,500,000

(d) Profitability

10) Net operating margin, % = Operating income =
Sales

= Sales –cost of goods sold – total operating expenses
Sales

= **N**5,400,000 – N 4,400 – N 550,000 = 8.33%
N5,400,000

---

11) Profit margin on sales, % =	Net profit / Sales	=	200,000 / 5,400,000	=3.7

(e) Investment

(12) Return on Total assets, %	=Net after tax income + interest / Total assets	= N200,000+N53,000 / N2.5 million	=	10.12
(13) Return on net worth, % =	Net profit / Shareholders' equity	= N200,000 / N1,500,000	=	13.33

SELF ASSESSMENT EXERCISE

Define liquidity ratio. List the different types of liquidity ratios and their role in financial decision.

4.0 CONCLUSION

You have learnt that liquidity ratio is one of the financial ratios used as a tool to ascertain the level of a business preparedness to settle short-term obligations (debts).

5.0 SUMMARY

In this unit, you have learnt definition, explanation and types of liquidity ratios and usage in financial analysis and management of an enterprise.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain liquidity ratio of an enterprise.
2. Identify different types of liquidity ratios and their uses.

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UNIT 2 PROFITABILITY RATIOS

CONTENTS

1.0 INTRODUCTION

In this unit, we will consider another ratio for financial analysis known as profitability ratio which emphasis the efficiency of the operation of the enterprise. It will indicate how well the business enterprise is being managed. Profitability is the ability of an enterprise to generate earnings.

You shall be shown how profit (ability) is the difference between revenues (income) and expenses over a period usually one year. The management of an outfit uses profitability to measure performance.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Define and explain profitability ratios
- Identify the different profitability ratio
- Compute the profitability ratio.

3.0 MAIN CONTENT

3.1 Profitability Ratios

These ratios are used to measure the operating efficiency of an enterprise profitability indices are expressed in the income statement.

The primary financial analysis of profit ratios should include only the types of income arising from the normal operations of the business.

An enterprise is expected to earn profit to survive and grow over a long time. Profit making is essential, but management should not place customers concern, employees welfare consequences of suppliers and other social needs in the lower rung of the ladder in its quest for profit maximization. You will agree with me that the business need to survive first before profit is sort.

Yes, profit is the difference between revenues and expresses over the period could be one year computation. This is the expectation of the enterprise and will help in evaluating the performance (efficiency) of the business.

As an objective, the entrepreneur – owners (managers) will through this process, want to get the rate of return of their investment. On the other hand, creditors will evaluate the ability for them to continue business if the profitability ratio is assuring for interest and principal regular repayment.

Generally, there are two major types of profitability ratios – profitability in relation to sales and the one based on investment.

3.1.1 Profit Margin

What is Profit Margin? It is margin that indicates the extent to which an enterprise can generate profit from sales. It is a measure of an enterprise's operating efficiency i.e. it helps in measuring the relationship between sales and operating profit. The profit margin in other words measures the profit made on sales after all the running expenses have been deducted from gross profit. Expressed as

Operating Income/sales x 100

Net Profit Margin

When operating expenses, interest and are removed from the gross profit you get the Net Profit. Net profit margin ratio is derived from dividing profit after tax by sales. Expressed thus below:

Net profit margin = Profit after Tax/sales x 100

You should note that Net Profit Margin ratio relates net profit with sales. This establishes management's efficiency in manufacturing, administering and marketing the products. It shows an enterprise's ability to withstand adverse economic conditions. A high net margin ratio connotes an advantage position to survive falling selling prices, rising costs of production or declining in product demand. An enterprise with low net margin ratio would find to difficult to survive adverse situation in the market.

It may be of interest for you to know as student of financial analysis that, similarly an enterprise with high net profit margin can make good use favourable condition. Such as:

- rising selling prices
- falling costs of production or
- increasing demand for the product.

An enterprise of such will be in advantage to accelerate its profits faster than an enterprise with low net profit margin.

Gross Profit Margin

This ratio shows profit relative to sales after the direct production cost have been deducted. In other words, it shows the average gross profit on goods sold. It can be used as an indicator of efficiency of production operation and the relationship between selling price and production costs. This is expressed as an equation as follows:

Gross Profit Margin = (Sales – Cost of Goods Sold)/Sales x 100
Or
Gross Profit/Sales x 100
As a norm, the higher the ratio, the more efficient an enterprises' operation could be.

Note: If the product of an enterprise is mono, the ratio should correspond to the trade mark-up. For an enterprise with multi-product background, which does not apply uniform trade mark-up to all the different lines of goods sold, a different gross margin should be calculated for each line goods.

Placing a reliance on the gross margin computed, the following factors should be considered.
· The method of stock valuation (this need to be consistent)
· Trade discount granted to customers
· Purchase or production cost
· Sales mix
· Whether theft occurred.

If sales are not recorded, the cost of goods sold in relation to the sales is very high. If stock is being stolen, the ending inventory will be low and the cost of goods sold will be high gross profit margin analyzing help users like managers of budget gross profit levels into their predictions of profitability. The margins are also used in cost control. Estimations utilizing gross profit margins can determine stock (inventory) levels for interim statements in the merchandising industries. It can also be used to estimate stock (inventory) involve in losses. Also, the margins are applied by auditors and Internal Revenue Service to judge the accuracy of accounting system.

3.1.2 Mark-Ups on Cost

This is another ratio used in analyzing trading profitability of an enterprise. It shows the profits relative to direct costs of production expressed as follows:

Gross Profit/Cost of goods sold x 100
This ratio shows gross profit in different ways. A fall of two ratios.

SELF ASSESSMENT EXERCISE 1
Explain profitability ratios and their uses.

3.2. Basic Earning Power

You should note that to analyse an enterprise's financial performance, two aspects are of interest to investors.

First, its financial performance – that is its ability to generate income. (Return on investment). Ratios of financial efficiency in this respect focus on ROI the relationship between income and sales and income and asset.

Second, its financial performance employed may be assessed based on the value of its shares to investors. That is ratios of financial performance focus on earnings per share, dividend yield and price earnings ratios.

The analysis of efficiency as earning power shows that the overall measure of earnings performance for purpose of comparison is the ratio of return on capital employed, otherwise known as return on investment.

This ratio consists of several components which two are of the most important of which are the asset turn-over ratio and return on sales ratio.

3.2.1 Return on Investment (Capital Employed)

The term investment refers to in this context as total assets or net assets. The funds employed in net assets are known as capital employed. Net assets equal net fixed assets plus current assets less account liabilities minus bank loans. Alternatively, capital employed is equal to net worth plus total debt.

As could be inferred in summary there are several ways of stating the value of this ratio.

Note:
As discussed earlier in Module 1 analysis could be based on intra or inter-enterprise comparison. (intra-the same industry; inter – different industry; inter – different industry). In this case, care must be taken in making it inter – enterprise comparison.

The ratio may be expressed thus:
· Net Income/Shareholders' Equity
· Net Income + Interest/Equity + Long-term Liabilities
· Net Income/Gross Tangible Assets.

You should note that when you are to analyse an enterprise's efficiency in generating income, it is more appropriate to use total assets, that is net fixed assets plus current assets, as the denominator.

On the other hand, the investors would be interested in relating net income to the value of the shareholders' equity.

3.2.2 Earnings per Share

Investors trade in shares of a particular company to earn reasonably at the end of the business year. They seek to make the best allocation of his investment funds. The earnings efficiency of that company is very important to him, but it has to be in tangent with its shares. For this fact, ratios of several dimensions are applied by investors in appraising the performance of companies in terms of share prices and yield.

i. Ratio of Earnings per Share
Stock Exchange prices are quoted on a share basis. It is pertinent to interpret a company's financial performance in terms of earnings per share.

For ordinary shares the ratio is expressed thus:
E.P.S. = NIAT – PDR /OS

Where EPS = Earnings per share
NIAT = Net Income after Tax

PDR = Preference dividend requirement
O.S = Number of ordinary shares

Note:
This ratio is significant only for ordinary shareholders. Preference shareholder only have right to a fixed dividend.

Generally, it is acknowledged that ordinary shareholders market value is closely related to the earnings per share. This makes this ratio to be used as a basis for predicting the future ordinary shares value. It also aids in the forecasting of future dividends.

ii. Dividend Yield
The dividend yield focuses on the value of dividends declared to an investor (shareholder). The formula for its calculation is as follows:

Dividend yield = Ordinary dividend per share/Market price per ord. share x 100

Note: Dividend yield is used to evaluate the shareholders' return in relation to the market value of the shares (investment). Hence, the result is to be compared with returns from other types of investment for right decision taking.

Rightly stating, investors interested in seeking high yielding share can compare the dividend yield of other shares investments in other to select for purchase highest yielding shares.
iii. Dividend pay-out ratio

This ratio is otherwise known as Dividend coverage ratio. It reveals the percentage of dividend in relation to the percentage retained to expand the growth of the enterprise or firm. It indicates the continuous ability of a company to pay current dividend levels in the future forecasted by the dividend coverage ratio. This is calculated as follows:

Dividend per Share/Earning per share x 100

The ratio bears strongly on what accrues to the shareholders as cash dividend since it is a directory to future/potential investors. It will reveal how much is retained for future expansion and growth of the company's internally financed source. It is obvious that the company has provided ample margin of earnings enough to make current dividend declaration.

iv. Earning Yield
This yield states the earnings yield in relation to market price per share. This is expressed thus:

Earnings yield = Earnings per Share/Market price per share x 100

v. Price earnings ratio
This relates earnings per share to the current market price of the share. It reciprocates earnings yield and allows an investor to contemplate on the ordinary shares in other to obtain a more accurate view on return on investment associated by current earnings. This facts makes it a capitalization factor.

Expressed in formula as: Market Price per Share /Earnings per Share

Example: If the earnings per share in the Eneobong Co. is N10.00 and the Lagos Stock Exchange share price on the date of publication of this result is N25.00 per share. (The price earnings ratio is 2.5). This ratio may be the basis of comparing several purchase alternative in making a decision.

SELF ASSESSMENT EXERCISE 2

What is return on investment for an enterprise?

4.0 CONCLUSION

The conclusion drawn from this unit is that there are different analysis of profitability ratios. Each tends to approach profit from various perspective, the users of the financial information. The core investors, the financial analyst, creditors, financiers, etc. Each considers the analysis from what is for its part.

5.0 SUMMARY

In summary, profitability ratio expresses different profit level of a firm as it affects users. These include profit margin, mark-ups on cost, basic earning power and return on investment.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain profit margin of a business enterprises stating the different types.
2. Discuss basic earning power of an enterprise.

7.0 REFERENCES/FURTHER READING

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UNIT 3 LEVERAGE RATIOS

CONTENTS

1.0 INTRODUCTION

In this unit, you will learn that leverage ratio is another aspect of financial ratio analysis based of financial statement information. It measures the extent of an entrepreneur applying debt financing and its implications as opposed to equity financing.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Define and explain leverage ratio
- Identify different types of leverage
- Assess debt ratios implications in a business organisation.

3.0 MAIN CONTENT

3.1 Leverage Ratios

This ratios measure the relationship between the funds provided by the owners (shareholders) of an enterprise and funds provided by creditors (non-shareholders) of the business enterprise. The funds provided by the owners (Equity shareholders) are known internally generated and when funds are contributed by non-shareholders, this source is known as externally generated funds. Every business uses both sources for funding but the ratio the leverage which measures the ability of the business enterprise service (operate) the charges accruing from the use of outsiders funds (creditors). Borrowing capacity (leverage) ratios measure the degree of protection of suppliers of long-term funds.

Short-term creditors like bankers and suppliers of material are concerned with the enterprise's current debt-paying ability. The long-term creditors, like debenture holders and financial intermediaries considered the enterprises long-term financial strength.

Every business has to assess the financial leverage or capital structure ratios to ascertain the funds mix provided by the equity owners and creditors (lenders). The statute guiding financing encourages appropriate mix of both means. The process of placing the owner's equity return through the use of debt is called financial leverage or financial gearing or trading on equity. This phenomenon leverage, can work in opposite direction too. With higher cost of debt than the enterprise's overall rate of return, the earnings of shareholders will be reduced. Also there will be threat of insolvency. In case the enterprise is actually liquidated for non-payment of debt-holders dues – the residual owners will bear the brunt as shareholders.

Hence, using debt magnifies the share earnings and increases their risk. Furthermore, a highly indebted enterprise, finds it difficult to raise funds from creditors and owners in future. Margin of safety according to creditors is the owner's equity. If the equity base is small, the creditors risk will be presumably high. Hence, leverage ratios are computed to measure the financial risk and the firm's ability of using debt to shareholder's advantage.

You should note that leverage ratio can be computed from both the balance sheet and income statement.

From the balance sheet items is to determine the proportion of debt in total financing. The ratios under this cover indicate the extent to which the enterprise lies on debt financing assets. While from income statement computation is by determining the extent to which the fixed charges.

3.2 Types of Leverage Ratios

We have discussed leverage ratio, now, leverage through the following ratios.

i. Debt Equity Ratio
This ratio assesses the extent to which firm is using borrowed funds. The calculation is by dividing the total debt of an enterprise by its shareholders equity (Net-worth).

This is expressed thus:
Total Debt /Shareholders Equity (Networth)

For creditor, this ratio is best indicated to be low because the higher level of the enterprise's financing that is made available by owner's equity, the larger the margin of protection in case asset values shrink or losses occur. (Where there are preference shares, there are treated as debt with leverage ratio computation).

ii. Debt Total Asset Ratio:
This measures the amount of the total funds provided by creditors in relation to total assets of the enterprise. This is expressed as:

Total Debt /Total Assets
In this case creditors also want a low ratio for all debt's ratios, since lower ratio ensures greater safety against creditors' losses in case of liquidation of the enterprise.

iii. Long-term Debt to Total Capitalization
This measures the relative weight of long-term capital to the capital structure of the enterprise. This is known as Gearing Ratio.
This is expressed as:

Long-term Debt /Total Capitalization (capital employed)

It measures the extent to which an enterprise is funded by long-term loans. The lower the ratio, the lesser the financial risk of the enterprise.

iv. Times Interest Earned Ratio measures how satisfactory an enterprise meet its interest payment. This is expressed as:

Earnings before Interest and Tax /Interest Charges

It checks propensity to bankruptcy as it measures the ability of the enterprise to pay interest and capacity for new debt. The higher the ratio the greater the likelihood that the firm could cover its interest payments without difficulty.

v. Fixed Charge Coverage
Just similarity interest earned ratio but it is more inclusive since it recognizes that many enterprises lease assists and incur long-term obligation under lease contracts for the payment of lease premium. This is expressed thus:

Earnings before interest and tax + lease obligation /Interest charge + lease obligation

This ratio is preferable to the interest earned ratio for financial analysis leasing is widespread in financing businesses.

SELF ASSESSMENT EXERCISE
List the types of leverage ratios used by an enterprise.

3.3 Debt Ratios Implications

What debt ratio implies is that, it show cases the level of debt – financing has been used in the business. A high debt to equity implies that clams of creditors are greater than those of owner's equity.

A high debt enterprise
1. Can borrow funds from be restricted in terms and condition since the bargaining stand is not strong. This goes with certain condition before loan agreement is honoured such as
• Maintaining a certain working capital
• Restricting the payment of dividend
• Limit salary of workers which will in turn limit the number and calibre of staff employed.

2. It leads to creditors' pressure

3. It constraints independence of management functioning properly

4. It leads to the enterprise entangling in a debt-trap if not timely managed out of the quagmire.

A low debt-equity ratio implies a greater owners' claim than creditors. The creditors regard this position as satisfactory situation since a high proportion of equity provides a greater margin of safety. During low profit period, low debt-equity ratio enterprise enjoys lesser burden in debt servicing exercise.

From the owners' equity views, they are disadvantage at this period. The higher the debt equity ratio the larger the shareholders earnings as the cost of debt is less than the overall rate on return on investment of the enterprise.

The need arises to strike a proper balance between the use of debt and equity. This balance hangs on appropriate debt-equity combination trade off between risk taken and return obtained in the entrepreneurship.

There is need for caution in the interpretation of this phenomenon – debt ratio.

4.0 CONCLUSION

In this unit you learnt of leverage ratios as an aspect of financial ratios as an aspect of financial ratio which measures the level of debt as against equity in an enterprise.

5.0 SUMMARY

This unit is summarized into explaining and defining leverage ratio, identifying the types of leverage ratios and debt ratios implication for an enterprise which is a going concern. In the next unit you will learn of Activity ratios in a business enterprise.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain leverage ratio in a business enterprise.
2. What is the implication of debt ratios in a business organisation?

7.0 REFERENCES/FURTHER READING

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UNIT 4 ACTIVITY RATIOS

CONTENTS

1.0 INTRODUCTION

In this unit, you shall learn of another aspect of financial ratio known as activity ratio. Its main focus is to measure the overall performance of an enterprise. It is employed as a tool to evaluate the effectiveness of an enterprise as for the use of its resources.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Define and explain activity ratio
- Identify types of activity ratios
- Measure activity ratios.

3.0 MAIN CONTENT

3.1 Activity Ratio

The activity ratios are used for the evaluation of enterprise efficiency. It aids the entrepreneur or the manager to manage and utilize the assets.

Owners equity and creditors fund are invested in various assets to generate profits and sales. With proper analysis of activity ratios of an enterprise asset will be better managed. Activity ratios are also known as turnover ratios because they show the speed with which assets are converted to sales. Hence, the ratio demonstrates the relationship between sales and assets. When they are well managed, it reflects a proper balance between sales and assets utilization.

SELF ASSESSMENT EXERCISE
What is main focus of activity ratios?

3.2 Measurement of Overall Performance

Overall performance can be measured by several activity ratio as follows:

1. Return on Capital Employed – ROCE
ROCE relates profit earned to the amount of long-term capital invested in the enterprise. With this ratio, management measures how useful the enterprise's resources are efficiently managed. i.e. capital employed is total assets less current liabilities.

Expressed as Earnings before Interests + Tax /Capital Employed

2. Current asset turnover measures the number of times current assets has been converted into sales.
Expressed as : Sales /Total Current Assets

If this ratio indication is higher, then it reflects how more effective the revenue generation of an enterprise is.

3. Fixed Asset Turnover exposes the efficiency in the usage of fixed assets in the revenue generation expressed as:

Sales /Net Fixed Assets
Note: If the ratio is higher, it reflects better disposition for the enterprise.

4.Inventory (Stock) Turnover Ratio: shows how efficient and effective an enterprise inventory and its liquidity is managed.
Expressed as : Cost of Sales/Average Inventory

To arrive at average inventory we divide by two the sum of opening and closing inventories (stocks).

Note: Higher inventory turnover indicates how efficient the management of an enterprise's inventory and its liquidity is. Low inventory turnover is often a sign of excessive, show or obsolete items in store.

5. Average Payable Period/Creditors Payment Period: This ratio measures the insolvency of an enterprise. This shows the average number of days an enterprise uses in paying of its credits.

Expressed as : Account Payable/Annual credit sales x 360

Low credit period ratio shows that the enterprise makes credit payments promptly and that the credit system is efficient. The high ratio shows that the credit payments are not prompt and inefficient.

6. Average Collection Period/Debtors Collection Period
This ratio measures the speed which an enterprise collects amount owed by customers. It determines average period receivable or collected after sales.
Expressed as : Receivables/Net Sales x 360

7. Receivables Turnover Ratio
It measures the quality of the receivables of the firm and the efficiency in its collection.
Expressed as:

Annual Net Credit Sales /Receivables
Note: Activity ratios are varied and abound. They could be extended to other areas but for the purpose of this course we stop at these few ones which are the basics. Good management which formula measures the inventory and liquidity?

4.0 CONCLUSION

In this unit, you have learnt about the activity ratio of an enterprise as an aspect of financial ratio which measures the overall activity.

5.0 SUMMARY

The summary of this unit entails the activity ratios – definition, explanation, identification of various types and the measurement. In the next unit, you will learn the investment ratio of an enterprise.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain activity ratio of an enterprise
2. Identify different types of activity ratios used in an organisation.

7.0 REFERENCES/FURTHER READING

Gibson, C.H. (1997). Financial Statement Analysis – Using Financial Accounting Information Ohio: South-Western College Publishing.

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MODULE 3: WORKING CAPITAL

UNIT 1 CASH MANAGEMENT

CONTENTS

1.0 INTRODUCTION

In business entrepreneurship, when sales arise not in cash, the immediate outlet is receivables – accounts receivables or trade debtors. Trade credit arises when an enterprise sells its products or services on credit and does not receive cash immediately as an essential marketing tool to retain customers. The management of these receivables is very vital to the business as a going concern. You will learn cash management and sensitivity analysis role.

Cash as you will agree is the basic input to keep a business on a continuous basis – the management of it is of essence in the life of the business.

In Unit 1 of Module 3 of this course, you will be introduced to another important aspect of working capital and current asset cash and receivables (debtors) which assist in the operation of a business enterprise.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Explain cash management
- State the steps to cash management
- Link sensitivity analysis to cash management
- Identify the motives of holding cash.

3.0 MAIN CONTENT

3.1 Cash Management and Control

Cash management is concerned with the managing of

• Cash flows into and out of the enterprise
• Cash flows within the enterprise
• Cash balances held by the enterprise at a point of time by financing deficit or investing surplus cash.

Cash management focuses on managing cash flows in and out of an enterprise i.e. cash flows within and cash balances held by an enterprise at a given point in time which is utilised either by financing the deficit gap or investing surplus cash.

Note:
Sales generate cash disbursed. Surplus cash is invested while deficit is borrowed to make-up.
Cash management attempts to control cash cycle at a minimum cost and tries to achieve liquidity. Cash management places cash as the most significant and at the same time the least productive asset at the disposed of an enterprise. It is a means of settling indebtedness of the enterprise.

It is not easy to predict cash flows accurately, that means, it takes time and dexterity to achieve its ideal position. That means the aim of cash management is to maintain adequate control over cash position to be able to keep the enterprise sufficiently liquid and to use excess cash in some profitable way.

Controlling cash in small enterprise is a problem because they entrepreneurs need the secret of controlling their cash through effective cash management skill. The secret of controlling cash is simply having the right amount on hand and in using the surplus wisely when they occur.

The right amount of an enterprise is based controlling cash balance. An enterprise should aim to have just the right amount of cash in hand – never too little for its needs and never too much for its needs. If a business enterprise has a permanent year around pressure on cash, that enterprise may be undercapitalised. Such shortage of cash can lead to disaster in that the entrepreneur/owner of business may not be able to pay the firm's bills as at when due. This may lead to the business going broke because it is a sign that the owner lacks the immediate financial resources to meet the sudden demands of new-cut throat competition.

This situation motivates the entrepreneur to move toward acquiring additional capital into his/her enterprise to shore up enough cash to keep the business financially healthy.

Also, an excess amount of cash often indicates that business is not utilizing its liquid assets properly. Invariably, excess cash gives room to purchase of new stock investing in short-term securities, redeemable as funds needs arises (Treasury bills), profitable ventures which enables the business to grow. In the case of accumulating fairly large amounts of excess cash on a regular basis, the best investment option investment probably would be that of ploughing the money into modernizing (ICT) and expansion of the enterprise into attracting greater patronage.

3.1.2 Steps to Cash Management

This involves two paths of action – (i) having the right amount on hand to pay your bills (2) using any excess of that amount wisely.

We will now consider an approach for a reliable cash management which involves four steps.
1) Keeping adequate records on cash book control
2) Identifying the cash flow pattern
3) Estimating future cash balances and
4) Utilizing excess cash to generate income.

Adequate Records
Most entrepreneurs operate without adequate bookkeeping to control cash hence there is no smooth path in the first phase of cash management procedure. To start with, there is need to check the present way of bookkeeping to ensure the records on cash are adequate. Does it show what is needed about the cash that comes into the business?... and what goes out of the business? Does it alert to cash deficits or to cash surpluses?

Cash comes from:
· Daily cash sales
· Payments made by customers to their accounts
· Loans acquired for short-term needs
· Additional capital borrowed on long term basis.

Cash flow Pattern
Book control provides information needed for the second phase of cash management. This path is concerned with keeping business healthy by: providing funds when deficits occur in cash, utilizing surpluses with prudence and working with dynamic situations (changing week to week, month to month, etc.)

Estimated Cash Balances
This is the third phase of cash management. The point which cash balances estimates are projected for the next one year (12 months). This achieved through cash budget (forecast). With the budgeting the income and expenses of the enterprise during the next month during the next 6 months and up to the next 12 months.

Use of Balances to Produce Earning
This is the fourth phase of cash management. The knowledge of cash balances of an enterprise (all things being equal) helps to achieve proper and dynamic control of cash. When there is cash management and control
• it guards cash balances and makes them available when needed.
• it alerts on month to month when the cash balance is less than expected expenses. (This problem can be tackled by an overdraft or short term bank loan to tide the business over the slag and to the next peak).
• it aids to determinate the growth rate of the enterprise. It serves as chart in utilising the cash surplus.
• Finally, if the enterprise grows to the extent that larger amounts of excess cash are accumulated, the alternative is to invest them in government securities, savings and loans shares, bank savings etc. or approach a reliable investment experts who is familiar with the enterprise's investment objectives for proper directives.

SELF ASSESSMENT EXERCISE
State steps of cash management of a business concern.

3.2 Sensitivity Analysis

In practice, there are alternatives to cash management, namely: forecast (budget) planning because of uncertainty based one set of assumptions of cash flows. One very reliable method of having insight about viability of cash flows of an enterprise is sensitivity analysis. By use of insight or experience, the firm would know that sales should decrease at the most by x% under unfavourable conditions as compared to the most probable estimate. This means cash forecasting can be projected under three sales conditions:
i. Optimistic
ii. Most probable
iii. Pessimistic

Determining the outcome of extreme expectations will help the firm to be prepared with contingency plans. If cash budget is based on worst circumstances, it will become useful to the management to face those circumstances.

3.3 Motives for holding cash

The Enterprise need to hold cash to achieve the following three motives:
· Transactions
· Precautionary
· Speculative

Explanations of each motive are:

Transaction Motive
This requires an enterprise to hold cash to perform it ordinary business activities. This cash is to pay for purchase, wages and salaries, other operational expenses, tax dividends etc. With perfect management of cash receipts and cash payment will make the holding of cash not necessary as there will be enough cash when payment is to be made.

Precautionary Motive
This is for the enterprise to meet up contingencies as the arise in the future. Cash at this stage is used to provide a cushion or buffer to withstand some unexpected emergency. The precautionary amount of cash will depend upon the predictable nature of the cash flow of the business. With predictable cash flows less cash will be maintained for an emergency. This can also be influenced by ability to borrow within a short notice by an enterprise.

Speculative Motive
This is holding cash for investing in profit-making opportunities as and when the need arises. The opportunity to make profit by an enterprise may arise when the security prices change. This is an opportunity to hold cash and expect a rise in interest rates and security prices will fall.

This is the inter-play in the capital market which if properly studied those holding cash have better opportunity i.e. securities can be purchased when the interest rate is expected to fall. The business will benefit if price fall subsequent in interest rate leading to increase in security prices.

SELF ASSESSMENT EXERCISE

Explain the three principal motives for holding cash.

4.0 CONCLUSION

We have identified cash management as a tool to maintain control over cash position which enhances the effectiveness of an enterprise to keep the required liquidity level and utilise the excess cash for profitable venture.

5.0 SUMMARY

In this unit, we have discussed cash management steps and control, sensitivity analysis and motives for holding cash.

6.0 TUTOR-MARKED ASSIGNMENT

1. In sensitivity analysis, explain under sales condition the means of cash forecasting.
2. Explain cash management in an enterprise.

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UNIT 2 RECEIVABLES MANAGEMENT

CONTENTS

1.0 INTRODUCTION

Organisations usually have claims to future inflows of cash. These claims are known as accounts receivables and note receivables expressed in financial statements.

The main claims come from selling of goods or services on account to customers – trade receivables (debtors) with the customer promising to pay within limited period of time e.g. 30 days.

These claims from customers bear no interest nor involve claims against specific resources of customer. It is purely based on understanding and relationship to keep the business going.

The major factor of receivables is that the organisation expects to receive cash sometime in the future. The management of these receivable alternative will be discussed and the position of this unit.

In this unit, you will learn about receivables management, credit sales versus cash sales as well as credit policy.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Explain receivable management
- Differentiate credit from cash sales
- Show credit policy – its nature and goals.

3.0 MAIN CONTENT

3.1 Receivables Management

Trade credit make way for trade debtors otherwise known as account receivable which a business (an enterprise) expects to receive in form of cash in the near future (usually which a short period within the financial period e.g. a week, fortnight, month, quarter, half a year, a year). The customers benefiting from this gesture are known as trade debtors or generally listed as debtors (to be claimed as asset of the organisation.

Receivables are risk elements, meaning that management must identify some elementary facts (characteristics).

1. It involves the analysis of the implication of value of credit sales. Cash sales are riskless. Credit sales need to be carefully analysed as cash payment will be in future. The integrity of the beneficiary of the sales must not be in doubt judging by the track record of the trade business.

2. Based on economic value, the purchaser benefits at the time sales immediately while the owner of the sales expects an equivalent of the trade value in future time.

3. It connotes that the buyer will provide the cash payment for the good/services received in a future period.

The time lag is the risk which is borne by the seller. He need be sufficient and surplus in its cash holding, control and management to stay afloat till that aspect of account is received as a whole. Any hiccup in repayment by the customer (beneficiary) will negative affect the cash flow level at the expected time. You should note that debtors form a reasonable part of current assets of many enterprise especially where the customer need this service to enhance their being in business as a going concern.

SELF ASSESSMENT EXERCISE
"Receivables expect cash in future". Discuss

3.2 Credit Sales versus Cash Sales

When credit sales are granted to customers by producers/distributors/ providers of goods/services, debtors are created. This leads to engaging the enterprise's funds until the debt is repaid. The interval of sale between commitment date and the date of settlement of the indebtedness has to be financed out of working capital. This is done with strong cash management base. The proportion of cash sales must be substantially adequate to sustain the gap. Banks and other sources of sustaining necessities of the business need be cordially sustained. This is the aspect needed for effective management of the amount tied-up in trade debtors.

If the cash trade is say 80% and 20% is left for credit trade, the policy will be positively skewed, but if otherwise 20%:80% the cash balance position will be negatively skewed. The receivable management approach will have to adhere to the proportion that allows cash balance to be favourable to the sustenance of the business.

3.3 Credit Policy

Policy is a plan of action, statement of aims and ideals especially one made by business, company etc (Hornby, 2006). Every enterprise organised develop many policies and for a going concern – credit policy is also put in place as a tool of managing the available credit arrangement.

Many firms arrange loan commitments from banks or insurance companies for future loans. Often the firm does not intend to obtain these loans but has arranged the credit arrangement just in case a need exists for additional funds. Such credit arrangements do not represent a liability, unless the firm actually represents the funds. Analytically, a substantial credit agreement is a positive condition in that it could relieve pressure on the firm if there is a problem in meeting existing liabilities (Gibson, 1997).

The finance house obtains a fee in return for giving the credit agreement – usually a percentage of the unused portion of the commitment.

3.3.1 Nature of Credit Policy

Credit policy is usually the combination of decisions variables – credit standards credit terms and collection efforts on which the financial manager has influence.
• Credit standard are criteria to decide the types of customers to whom goods could be sold on credit.
• Credit terms specify duration of credit and terms of payment by customers.
• Collection efforts determine the actual collection period. (Pandey (2005: 602).

3.3.2 Goals of Credit Policy

An enterprise may follow a lenient or stringent credit policy depending on the type of business. The gestation of the venture determines the policy thrust. The enterprise with a lenient credit policy operates on liberal terms and standard with long gestation considerate even to those customers with doubtful creditworthiness.

The business enterprise with a stringent credit policy operates on a highly selective basis only to those customers with proven creditworthiness with strong financial base. The policy falls in between lenient and stringent approach. The cost-benefit analysis helps in determining the point of decision making.

Credit Policy Variables
The optimum and credit policy of an enterprise is established by considering the main decision variables which affect the level of receivables namely:
• Credit standards and analysis
• Credit terms
• Collection policy and procedures.

Whenever administers credit policy of a firm (Financial or credit manager) considers variables from the firm's operation/production (service/product), marketing and finance function in answering the following questions and also ensure that the firm's value of share is maximised.
•What will be the change in sales when a decision variable is altered?
• What will be the cost of altering the decision variable?
• How would the level of receivable be affected by changing the decision variable?
• How are expected rate of return and cost of funds related? (Pandey, 2005).

Credit Standards
In selecting customers for the purpose of credit extension, criteria are set as standards as previously discussed. Standards depend on policy – tight or loose. In credit administration,

such standards will result in no bad debt losses and this will cost less. The profit sacrificed on lost sales may be more than the costs saved by the enterprise.

For credit analysis, credit standard determines the calibre of the firm's customers – the time taken by the customer to repay credit indebtedness and the default rate.
· The average collection on period
· Default rate
· Default risk.

Moreover, character, capacity and condition (three C's) are the qualitative consideration the management will weigh before granting the credit sale.

Economic considerations, information collated from the customers themselves, their published financial statements and other agencies reports on credit information about customers should be able to categories customers to identify enterprise with
· Good accounts
· Marginal accounts
· Bad accounts.

Once an enterprise has ascertained the creditworthiness level of a customer, credit granting decision is taken – that is – whether or not to grant credit. Good account is a sine-qua-non to the extension of credit, while bad account holder is rejected for a credit extension. Most enterprise consider evaluating marginal accounts – not so bad account customer with not too strong financially but maintain a dependable trend in the business – could be extended credit.

SELF ASSESSMENT EXERCISE
State the goals of a credit policy.

Cash discounts
This is another way of encouraging customers. This is a reduction in payment offered to customer to induce repayment of credit obligations within a specific time less than the normal credit period. The term available shows:
· the rate of discount and
· the period thereof.

Illustration:
Credit term obligation may be expressed as: 'Z/10, net 30" This means that a 2 percent discount will be granted, provided the customer is ready to make payment within 30 days (one month).

This is a means of increasing sales and enhancing collection from customer not minding the reduction in the level of receivables and the costs involved.

Collection Policy, Process and Procedure
A collection policy is needed in an enterprise. It lays down clear-cut collection mode. The policy spells out the guide.

The process of operating the collection is worked out by the management as guided by the policy to ensure prompt and regular collection. The procedures for past dues or delinquent transactions should be settled amicably as some of them may be regular customers with 'hicup' in their business. If they not properly handled, it is possible the enterprise may lose them to their competitors.

Note: It is a known fact that all customers do not pay the firm's bill at once. Some pay show-payers while others don't. The general consensus (focus) should therefore aim at accelerating and ensuring prompt and regular collection.

4.0 CONCLUSION

The conclusion is that the major factor of managing receivables is that the organisation expects to receive cash eventually in the future. The gap has to be followed up properly for a favourable return for if left to chance may not be gainful.

5.0 SUMMARY

In this unit, you have learnt about receivables management, cash sales versus credit sales and credit policy.

6.0 TUTOR-MARKED ASSIGNMENT

1. "Credit sales are granted customers by producers of goods/services and debtors are created". Discuss
2. "Credit is a combination of decision variables". Explain

7.0 REFERENCES/FURTHER READING

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UNIT 3 INVENTORY MANAGEMENT

CONTENTS

1.0 INTRODUCTION

Inventories are the balance of goods on hand (part of current assets). In a producing enterprise, they comprise raw materials, work-in-progress and finished products. These inventories need to be managed properly to avoid unnecessary cost.
In this unit, the management process and control of inventory will be explained.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

- Highlight the nature of and the need for inventory
- Explain the process for managing inventory
- Discuss inventory management techniques.

3.0 MAIN CONTENT

3.1 Nature of, and Need for Inventory

As noted in the 1.0 above, inventory is one of the current assets of the financial statement of an enterprise.

Managing current assets generally require a great attention and inventory is inclusive.
• Inventory is constantly being in use. Raw materials and work-in-progress inventories are used in production. Finished goods are sold, spare parts replace worn-out parts. The rate of usage, depend on the type of inventory.
• Managing the level of inventory can be compared with maintaining the level of water in a bath tub with an open drain.

The water flows out continuously. If it flows too slowly, the tub is soon empty. If it is let too fast, the tub overflows. Like the water tub the particular inventory items is dynamic, while the level may stay the same.

The fundamental financial decision problems are:
o to determine the proper level of investment in inventory and
o to decide how much inventory to be acquired at each period to maintain the required level.
• Maintaining inventories means:

o Tying up the enterprise's funds and
o Incurrence of storage and
o Handling of costs.
• Just like cash (Unit 1, Module 3), there are three conventional
motives for holding inventories namely:
o Transactions motive – the need to maintain enough inventories to maintain enough inventories in order to facilitate smooth production and sales distribution
o Precautionary motive – enhances holding of inventories to guard against risk of unpredictable changes in demand and supply and other factors in the market
o Speculative motive – being decision to increase or decrease inventories level at one point or the other to capitalise on price level fluctuations.

Yes, an enterprise is obliged to maintain adequate stock of materials for a continuous supply to the factory. This continuous supply will lead to an uninterrupted production if the enterprise is to be sustained as a going concern.

SELF ASSESSMENT EXERCISE
Why is inventory held?

3.2 Inventory Management

Business enterprises manage inventory for different purposes as stated above (3.1). Inventory management is a tool to avoid excessive and inadequate levels of inventories and maintain sufficient inventory for the smooth operations of the enterprise in terms of production and sales output. The management should provide the enterprise with an order at the right time with the right source to acquire the right quantity at the right price and quality.

An effective inventory management ensures
• A continuous supply of raw materials to facilitate functional production and distribution.
• The maintenance of sufficient stocks of raw materials in short supply period and anticipate changes in price level
• Sufficient finished goods inventory for smooth sales distribution in order to sustain efficient customer service.
• Minimum carrying cost and time and
• Investment control in inventories and optimum level of operation.

SELF ASSESSMENT EXERCISE
Explain the effectiveness of inventory management in facilitating production.

3.3 Inventory Management Techniques

In inventory management, the shareholders' view of establishing the enterprise is considered to be in consonance with the objective of the management. This is achievable by determining the optimum level of inventory at a particular time taking into account all variables.

When the inventory management is efficiently controlled, it begets a flexible enterprise; while an inefficient inventory control results in unbalanced inventory. This may in turn lead to:
• Exhausting all available stock; and
• Sometimes, unnecessary stocks pricing.

To that extent, increasing the level of investment renders the enterprise unprofitable. In order to manage the inventories efficiently, two recognised systems are identified for the timing and amount of the order quantity. They are:
• The first in the re-order level system (continuous review system).

This is where an order is made automatically once a certain stock level is reached (i.e. sufficient is left to cover the lead time).
• The second is the periodic review system in which stocks are examined after a pre-determined period and the amount of the order is judged according to the likely demand in the following period.

Note: Both techniques can incorporate a margin of safety to reduce the possibility of 'stock-outs'.

A number of approaches are made for ensuring the size of an order in the re-order level system. Here, the one considered determines the economic order quantity (EOQ):

Stock is used evenly throughout the period the average stock has to be half the re-order level, that is ½ or .5Q.

Storage costs per unit per period represent the fixed costs of holding stock. If these costs are constant, the total storage costs of the period are the average number of units multiplied by the storage cost per unit expressed thus: ½ SQ or SQ /2

Where
S = the storage cost/unit/period
Q = the order quantity

The total number of orders can be determined by dividing the total usage for the period by the re-order quantity. This means that the total stock cost can be expressed as SQ/2 + TO/Q

The larger the order, the higher the holding costs but the less the number of orders and their total cost.

The EOQ technique balances the fixed holding cost against the cost of orders by differentiation.

EOQ = $\sqrt{\frac{2TO}{S}}$

Where:
T = Total period usage
O = Ordering cost per order
S = Storage costs per unit per period.
Illustration
An enterprise uses 10,000 units in 60 days. The ordering costs are N200 per order and the storage cost for one unit for 60 days is N1. Calculate the EOQ.

EOQ = $\sqrt{\frac{2 \, x \, 10{,}000 \, x \, 200}{1}}$
= 2,000 units

This technique is applicable in various circumstances. Economic Ordering Quantity or Economic Batch Quantity or Economic lot size is a calculated ordering quantity which minimises the balance of costs between inventory holding costs and re-order costs.

• Inventory management problems have been highlighted and the techniques of the management discussed. There are inherent cost which is to be spelt out further below:

o Ordering cost and

o Carrying cost.

• Ordering costs include the entire costs of acquiring the raw materials. It increases with number of orders.

• Carrying costs – incurred for maintaining a given level of inventory like special facilities.

The summary of the two costs are shown in the table below:

Ordering costs	Carrying costs
Requisition, order placing, transportation, staffing, receiving, inspecting and storage	Warehousing, handling, insurance, obsolescence/deterioration staff, tax,

4.0 CONCLUSION

This unit has highlighted inventory management problems and the techniques thereof and concluded that inventory need proper attention to avoid unnecessary cost and keep the enterprise in good footing as a going concern.

5.0 SUMMARY

In this unit, you have learnt about the nature of and need for Inventory, inventory management and its technique. You also learnt about the two problems associated with inventory management.

6.0 TUTOR-MARKED ASSIGNMENT

1. If an enterprise has an expected usage of 50,000 units of a product during the next year, the cost of processing an order is N20 and the carrying cost per unit is N0.50 for a year. Calculate the Economic Order Quantity.

2. Why is inventory management important?

7.0 REFERENCES/FURTHER READING

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UNIT 4 SIMULATION APPROACH TO WORKING CAPITAL

CONTENTS

1.0 INTRODUCTION

This unit will focus on simulation approach to working capital in an enterprise. The concept of working capital will be explained.

Simulation approach will be defined and explained along with its usefulness in working capital application.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

1. Discuss the concept of working capital
2. Define simulation
3. Link simulation approach to working capital.

3.0 MAIN CONTENT

3.1 Working Capital

This is defined as the excess of current assets over current liabilities. It is regarded as being available for supporting current operations as distinct from the financing of capital expenditure.

There are two concepts of working capital:

· Gross working capital and

· Net working capital.

Gross working capital refers to the enterprise's investment in current assets. These are assets convertible to cash within a financial year.

These are:

Cash, marketable securities, debtors (account receivables), bills receivable and inventory (stocks).

Net working capital are the difference between current assets and current liabilities which are expected to mature for payment within a financial year.

These are:

Creditors (account payable), bills payable and outstanding expenses.

Note: This working capital can be positive or negative.

- A positive net working capital arises when current assets is more than current liabilities;
- A negative net working capital is when current liabilities are more than current assets.

They are both significant in management point of view.

3.2 Simulation

Definition – Simulation is the process of experimenting or using a model or noting the results which occur. In a business, the experimenting with a model consists of inserting inputs values and observing the resultant output values.

Illustration:

In a simulation approach of a queuing situation the input values might be the number of arrivals and or services points and the output might be the numbers and or times in the queue.

Why is simulation used?
Simulation is used where analytical techniques are not available or would be overly complex. Typical business examples are:
· Production
· Planning problems
· Corporate planning
Simulation often provides an insight into a problem which would be unobtainable by other means. By simulation approach, the behaviour of a system can be observed overtime and because only a model of the system is used the actual time span can be compressed.
Fundamental to simulation is the concept of model.
Simulation models represent the behaviour of a real system. Simulation models are used where there is no suitable mathematical model, where the mathematical model is too complex or where it is not possible to experiment on a working system without causing disruption. One application of simulation models in the management context is the study of relatively inexpensive computing facilities many business games are based on the simulation of the operation of the complete business.

SELF ASSESSMENT EXERCISE

Define Simulation.

3.0 Simulation Approach to Working Capital

Through computer simulation the cash flow of an enterprise can be estimated and evaluated. This evaluation takes place by estimating the impact of a project on the firm's cash flow (inflow and outflow), especially in a large investment that affects many aspects of an enterprise's operation. The cash flow impact of a project can be estimated using simulation (Schall and Haley, 1979).
• Simulation is established as the artificial duplication of a process for example, the duplication, at an abstract and simplified level, of the operations of an enterprise.
• Simulation analysis can evaluate the effects of a particular policy or decision (such as working capital) on some measure of the enterprise performance, for instance cash flow, working capital – (Gross or net), budget etc. One result of the simulation study is an estimate of the probability distribution of the enterprise's additional working capital need.
Glautier and Underdown (1978) stated that modern computers have greatly extended the range of probabilities which are considered in planning decision-making and applicable to such problems of simulation techniques which are more representative of real-life situations. To them, there are various applications of large scale simulation which include working capital and it is evident that as the scale of a problem increases, so this technique becomes more useful.
One of the major contributions of simulation techniques to management science is in improving our understanding of the way in which organisation work, and therefore in improving the efficiency with which decisions are made.
Large scale simulation does not aid only with difficulties created by the number of variables existing in a decision – problem, but it also useful in handling a much wider range of values attached to these variables.
The analysis of investment proposals may be carried out through simulation in order to test the probabilities attached to receiving the expected return and the nature of the dispersion which surrounds these probabilities.
Working capital is the difference between current assets and current liabilities and simulation approach will be used in stemming the gap in a large enterprise.

SELF ASSESSMENT EXERCISE

Link up simulation approach to working capital

4.0 CONCLUSION

It is a worthwhile conclusion that when simulation approach is applied to working capital level of a large enterprise, there will be solution as is applied to cash flow, budget etc.

5.0 SUMMARY

The summary of this unit is based on: working capital, simulation and simulation approach to working capital especially in large enterprise.

6.0 TUTOR-MARKED ASSIGNMENT

1. Associated in your own way simulation and working capital of an entrepreneur.
2. Discuss the limitations of calculating working capital of a large enterprise without simulation approach.

7.0 REFERENCES/FURTHER READING

Glantier, MWE and Underdown, B. (1978). “Acting Theory and Practice” Pitman Publishing, London.

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MODULE 4 LINEAR PROGRAMMING AND PRODUCTION CONTROL

UNIT 1 LINEAR PROGRAMMING FOR SHORT TERM DECISION

CONTENTS

1.0 INTRODUCTION

The nature of relevance of short term tactical decisions depends on the type of decision and problem for which are required. In this unit, we shall examine Linear Programming as a tool of ascertaining short term decision in an enterprise.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

1. Define Linear Programming
2. Explain short-term decision
3. Solve a solution through Linear Programming model.

3.0 MAIN CONTENT

3.1 Linear Programming

Linear Programming is a mathematical technique which seeks to make the best use of an enterprise's limited resources to meet chosen objectives, which in accounting terms, may be:

· Maximisation of profits or
· Minimisation of costs.

SELF ASSESSMENT EXERCISE

Define Linear Programming.

3.2 Short-term Decision – Explanation

Short-term decisions are aimed at making the best use of available facilities. The contribution margin is a fundamental concept of this and it is defined as the excess of the revenue of any activity over its relevant costs, which is available as a contribution towards fixed costs and profits. Of course, profits are not made until all fixed costs have been covered, but under particular circumstances the expectation of a contribution margin will be enough to justify a certain decision.

We consider a decision problem with which a businessman is frequently faced is the acceptance of a special order which may be a large order at a price below the usual selling price and sometimes below total manufacturing costs.

Illustration:

Bassey Umo Ltd. Manufactures a garment sold under the trade name of Ofong. Its total productive capacity is 100,000 units in the current period and actual production is running at 80% of productive capacity. The product sells at N1,000 per unit and the firm's cost of production are stated below:

Fixed costs N25,000.00

Variable costs N0.50 per unit

The enterprise receives a special order for 10,000 Ofong from a mail order firm, subject to the enterprise agreeing to sell the product at N0.60 per unit. The Chief Executive is refusing to accept the order because the selling price is well below the manufacturing costs calculated as thus:

Fixed costs per unit (allocated over 90,000 units)

N25,000/90,000 = N0.28

Variable costs per unit 0.50

Total manufacturing cost N0.78 per unit

The contribution margin approach to the solution of this decision problem leads to a different conclusion. The revenue per unit is N0.60 and the relevant costs associated with the decision are the variable costs of production only, that is, N0.50 per unit.

Therefore a unit contribution margin of N0.10 per unit on that basis, the firm accepts the special order. The fixed costs are not relevant costs because:

1. They are sunk costs (they are not future costs).
2. They are not affected by the decision to accept the special order which is not differential costs.

SELF ASSESSMENT EXERCISE

What makes up short-term decision?

3.3 Linear Programming and Short-Term Decision Problem

For a particular situation where a manufacturer has a limited plant capacity, the level and cost of output will be determined by such capacity. An example will be examined with linear programming approach to find solution of a typical short-term decision problem.

Illustration:

Elmobi Ltd. manufactures two high quality iron products in given the following information:

Products	A	B
	N'000,000	N'000,000
Selling price per unit	30	20
Variable cost per unit	15	10
Contribution	N15	N10

Milling and grinding machines are used in the manufacturing process and the total machines hours are needed to produce are unit of each product as follows:

Products	A	B
Milling	5 hours	1½ hour
Grinding	2	2
Total	7	3½

•Both products are in high demand

•The only constraint on output expansion is machine capacity

•The total machine hours available monthly are: Milling (3 machines at 200 hours per month – 600 hours) Grinding (2 machines at 200 hours per month – 400 hours).

Based on these facts, the problem of decision making is to ascertain that combination of output of products – A and B which will maximise the total contribution margin to overhead and profits.

Observations:

At first, it may seem that the enterprise should maximise the production of product A since that product yields the highest unit contribution margin.

Analysis:

Analysed in terms of the machine capacity limit, the total number of units of either product A or B which could be manufactured are expressed as:

Product A 600 hours ÷ 5 hours = 120 units
Product B 400 hours ÷ 2 hours = 200 units
These output limits are derived in the case of product A by the fact that output is limited to the capacity of the milling machines for Product A require 5 hours of milling as against only 2 hours of grinding. Product B is limited in output by the capacity of the grinding machines of which it requires 2 hours per unit as against 1½ hours of milling time.
Relating the calculation of the contribution margin to the machine capacity limits, the total contribution to overhead costs and profits which will be obtained by the production of either A or B is expressed below:
Product A: 120 units x N15 = N1800
Product B: 200 units x N10 = N2000
(All amount expressed in N'000,000 for better understanding).
Therefore, that given the option of making either product A or product B the enterprise should focus attention on the making of product B.

Linear Programming Approach

We have from 3.1 inferred that Linear Programming (LP) is an optimisation technique use to maximise total contribution margin of a mix of products (the objective function) with multiple constraints. The solution to the problem stated above will be considered under linear programming.
The first step is to formulate the problem in simple algebraic terms. We observe two aspect of the problem:
· The wish to maximise profits and
· The need to recognise the limits of production.
Let the two aspects be stated algebraically thus:
The objective of maximising the contribution to fixed overhead and profit. This is the objective known as the objective function expressed thus:
Maximise $C = 15A + 10B$
Where C = the total contribution and A and B = the total number of units of the two products which is to be manufactured to maximise the total contribution. This equation is subject to the limits that
$A \geq 0$
$B \geq 0$
For it is not possible to produce negative quantities of either A or B.
ii. Constraints on production come from the machine capacity limits of the milling section (600 hours) and of the grinding section (400 hours) and can be expressed thus:
$5A + 1\frac{1}{2}B = 600$
$2A + 2B = 400$
The first equation (inequality) states that the total number of hours used on milling must be equal to or less than 600 hours.
The second equation (inequality) states that the total hours used on grinding machine must be equal to or less than 400 hours.
The problem may now be summarised.
Thus:
Maximise $C = 15A + 10B$
Subject to the constraints:
$5A + 1\frac{1}{2}B = 600$
$2A + 2B = 400$
$A \geq 0$
$B \geq 0$

The optimal combination of products A and B may be found by solving the simultaneous equation given above, that is:
(1) 5A+1½B=600
(2) 2A+2B=400
Solution:
Multiply (1) by 4 and (2) by 3 to produce the value of A, thus:
20A+6B = 2400
-6A+6B = 1200
12a = 1200
A = 85 5/7ths
As we are focusing only with completed units of A, the optimal production of product A is 85 units. The optimal number of units of B may be computed by inserting the known value of A into the equation thus:
6x65+6B = 1200
510 +6B = 1200
6B = 1200–510
B = 115
Therefore, the optimal combination of products A and B is 85 units and 115 units respectively, in terms of the limited machine capacity which is expressed thus:

	Milling section (hours)	Grinding Section (hours)
Product A – 85 units	425 (85 x 5)	170 (85 x 2)
Product B – 115 units	172.5 (115 x 1½)	230 (115 x 2)
Total hours used	597.5	400
Total hours available	600	400

The optimal combination will produce a total contribution to overheads and profits of N2425 thus:

Product A 85 units at N15	= 1275
Product B 115 units at N10	= 1150
	N2425

We therefore verify that this combination of products is the optimal one in terms of profits and available machine capacity thus:
1. Altering the product combination from 85 units of A and 115 units of B to 84 units of A and 116 units of B which would affect machine use as follows:

	Milling section (hours)	Grinding Section (hours)
Product A – 84 units	420 (84 x 5)	168 (84 x 2)
Product B – 116 units	174 (116 x 1½)	232 (116 x 2)
Total hours used	594	400
Total hours available	600	400

Therefore, this combination is as efficient in the utilisation of the grinding department but less efficient in the utilisation of the milling machines. It is less profitable also yielding a contribution of only N2,420.00 as against N2425.00 as follows:

Product A: 84 units at N15	= 1260
Product B: 116 units at N10	= 1160
	N2420

2. Altering the product combination from 85 units of A and 115 units of B to 86 units of A and 113 units of B, which would affect machine use as under:

	Milling section (hours)	Grinding Section (hours)

Product A – 86 units	430 (86 x 5)	172 (86 x 2)
Product B – 113 units	169½ (113 x 1½)	226 (113 x 2)
Total hours used	599½	396
Total hours available	600	400

That means, whereas this combination is more efficient in the use of the milling machines than the optional combination, it is less efficient in the use of the grinding machinery. Moreover, to keep within the capacity limits of the milling section production of 2 units have had to be forgone of product B to expand the manufacture of product A by one unit.

The consequential contribution to profits is also only N2420.00 as against the optimal contribution of N2425.00, calculated thus:

Product A: 86 units at N15	= 1200
Product B: 113 units at N10	= 1130
	N2420

You should note that the linear programming approach to the best contribution mix gives a solution which is more profitable than the one which relates the contribution margin to the machine capacity limits which we discussed earlier and which suggested that only product B should be made so that 200 units of B would be manufactured to yield a contribution of N2000.

SELF ASSESSMENT EXERCISE

Practise more of short term calculation using Linear Programming approach.

4.0 CONCLUSION

In conclusion, this unit has shown linear programming as a tool of making short term decision for an enterprise.

5.0 SUMMARY

In this unit, we defined linear programming, discussed short-term decisions, and solved linear programming and short-term decisions.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is linear programming?
2. Explain short term decision based on linear programming approach.

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UNIT 2 PRICING AND PROFIT PLANNING

CONTENTS

1.0 INTRODUCTION

In this unit, you will learn how to explain pricing and discuss profit planning and how management applies them to the benefit of entrepreneurial growth and development.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

1. Explain pricing
2. Discuss profit planning.

3.0 MAIN CONTENT

3.1 Pricing

In our study of pricing, there are many factors critical to the success of an enterprise's short and long term plans. Importance is attached to cost control because of its susceptibility to control than other factors. In the concept of cost-volume-profit analysis is the centre of short-term planning, but in any given enterprise's cost structure, price changes could affect both the sales volume and the profit level. (Consideration of the purchasing power, task demand rate etc). In short, management ability to improve profits through price changes will depend on its knowledge of how the market will react to such changes.

Therefore, a well formulated pricing policy or strategy which considers the likely effects of price changes on the market's demand for the enterprises product, so as to plan a level of operation which, given the enterprise's cost structure will produce the required profit.

We may therefore associate in the study of pricing, the problem of management in the two-fold aspect

· The problem of control-in-the-large and

· That of control-in-the-small.

Pricing policy provides the means in which the enterprise can control to a degree, its relationship with its external environment (control-in-the-large) and at the same time, it is controlling its internal operations accordingly (control-in-the-small).

A further dimension to the problem of pricing: like if an enterprise formulates a pricing policy affecting its relationship with the market, such a policy has short term and long term implications (effect).

Any alteration in the volume of demand for the enterprise's products which results directly from its own pricing policy will affect its capital budgeting programme.

Hence, in summation an enterprise's long-term projected plan should reflect its long-term pricing policy. Thus, short-term changes in that policy should be effected solely for providing that degree of flexibility which essential for effective long-range planning and control.

SELF ASSESSMENT EXERCISE

Explain pricing and its implication, in an enterprise as a going concern.

3.2 Profit Planning

Budget is the profit plan base. A well managed enterprise usually produces a budget cycle planning the performance of the organisation as a whole including the profit projections. Profit planning is related to considering four main factors – fixed costs, variable costs, selling price and sales volume. Any change in one or several of other factors, affect the planned profit. The management has to develop strategies in making sure these factors are properly mixed regarding the term – short, medium or long for the enterprise and the competitions thereof.

4.0 CONCLUSION

Pricing in an enterprise has been shown as an integral decision form of an enterprise which aids in planning process and policy formulation.

5.0 SUMMARY

In the unit, pricing and profit planning were discussed in the line with the pricing policy and decision limitation of an enterprise.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is pricing in an enterprise.
2. Discuss profit planning giving the main factors of consideration.

7.0 REFERENCES/FURTHER READING

Glantier MWE & Underdown B. (1978) "Accounting Theory and Practice" Pitma Publishing, London.

Horngren, C.J., Foster, G. Dta, S.M. (2000) "Cost Accounting – A Managerial Emphasis, Prentice Hall,
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UNIT 3 ORGANISATIONAL GOAL PROGRAMMING

CONTENTS

3.0 Main Content
3.1 Goals
3.2 Organisational Goals Programming
3.3 Long-range Profit Goal
4.0 Conclusion
5.0 Summary
6.0 Tutor-Marked Assignment
7.0 References/Further Reading

1.0 INTRODUCTION

Organisational goal programming exists when people work out modality toward achieving organisational goals of an enterprise. In this unit you will learn of managers working together in their own best interest to take actions that align with the overall goal of management.

2.0 OBJECTIVES

At the end of this unit, you should be able to:

1. Describe goal of an organisation
2. Explain organisational goal programming
3. Discuss long-range profit goal

3.0 MAIN CONTENT

3.1 Goals

These are objects of efforts or ambition or expectations as results. Every enterprise has goals of its establishment ranging from profit making, providing goals/services, employment opportunities and other social responsibilities. There are two basic identifiable organisational goals namely:

• Board corporate goals which are general in nature and they are in form of policy statement which represents the ideals of the organisation.

• There are other goals derived from these goals establishing specific targets for the organisation which include peripheral goals – targets for each units, departments and performance standards for managers and employment.

SELF ASSESSMENT EXERCISE

What is the goal of an enterprise?

3.2 Organisational Goals Programming

Goal programming follow as guidelines for the enterprise. This is a general/broad look at estimated goals which serve as the objective of the enterprises that is, guidelines –

Illustration:

Uto and Sons Ltd. May have the following goals in programme

• Profit goal – to achieve a profit level of sufficiency adequate enough to the yearnings of the shareholders.

• Financial goal – to secure adequate financial resources

• Production goal – to improve in the efficiency of production of high quality products

• Market goal – to improve on public image and create goodwill for products label and packaging

• Employee goal – to provide good working condition for employees

• Technology goal – to initiate new and better product which will stand the test of time.

Specific Goals

Specific goals quantified and set as targets which are intended to apply to the time span of the planning period.

Illustration:

The goals established by Uto and Sons Ltd. For the next five years are:

• Profit goals – to attain a profit level of 20% before tax on the market value of the shareholder' equity by the end of the fifth year.

• Financial goals – to improve the current cash situation and reduce debtors by 5%.
• Production goal – to increase output per employee by 15% over the next five years
• Market goal – to increase total sales of product over the period by 30%
• Employee goal – to reduce labour turnover by 10%
• Technology goal – to improve on the quality of product in the next one year.

SELF ASSESSMENT EXERCISE

3.4 Long-range Profit Goal

The essence of long-range planning is really one of projecting for profit goal. Future cash flows and the attendant profits are highly constrained by past and present capital expenditure decisions. The enterprise's success depends on its ability to generate sufficient cash flows represented by profit. The selection of a profit target for long-range planning purposes is not just a matter of fixing an arbitrary figure such as N5 million. A profit target has little meaning; its significance appears when it is related to some other measurement like – total asset employed, and this makes the profit goal meaningful.

Thus, the Return on Capital Employed (ROCE) in an enterprise, which relates to asset used provides a clearer view and provides an assessment of significance of a profit target (goal) as expressed in formula below:

ROCE = Planned Net Profit /Planned Total Assets

It is a consensus in financial analysis (management) that ROCE is the most important performance evaluation for long-range planning and for setting long-range profit goals. In common practice, ROCE is computed for each year covered by the long-range plan in order to show whether planned increases in annual profits will be in consonance with annual increases in assets.

SELF ASSESSMENT EXERCISE

What is long-range profit goal setting?

4.0 CONCLUSION

In concluding this unit, you learn that goal programming exists when management workout modality towards achieving organisational goals of a business organisation.

5.0 SUMMARY

In this unit, the summary is goal, goal programming, organisational goals, long-range profit goal of an enterprise.

6.0 TUTOR-MARKED ASSIGNMENT

1. What is long range profit goal setting necessary for management of an organisation.
2. Explain goal programming in a typical business enterprise.

7.0 REFERENCES/FURTHER READING

Glantier MWE & Underdown B. (1978) "Accounting Theory and Practice" Pitma Publishing, London.

Horngren, C.J., Foster, G. Dta, S.M. (2000) "Cost Accounting – A Managerial Emphasis, Prentice Hall,
London.

UNIT 4: OPPORTUNITY COST AND CONTROL OF PRODUCTION

CONTENTS

5.0 Summary
6.0 Tutor-Marked Assignment
7.0 References/Further Reading

1.0 INTRODUCTION

In this unit, you will learn of opportunity cost concept and production control mechanism of an enterprise as a going concern and how production is controlled by choice of product (service).

2.0 OBJECTIVES

At the end of this unit, you should be able to:

1. Describe opportunity cost concept and explain its usefulness in decision making
2. Describe how to control production by choice of products.

3.0 MAIN CONTENT

3.1 Opportunity Costs

The opportunity cost can be defined as the value of the next best opportunity forgone or sacrificed, or of the net cash flow lost as a result of preferring an alternative rather than the next best one. Opportunity cost is the contribution to income that is forgone (rejected) by not using a limited resource in its next-best alternative use. Where it is clear that only the opportunity cost will assist in making the decision, the financial manager is often able to attempt its measurement.

Illustration:

The Allstate Investment Ltd is to invest N1 million. It has two viable projects for analysis:
Thus – Project A is estimated to produce an annual return of 15%
-Project B is estimated to yield 20% annually.

Based on above information, Project B will be selected by the company. The additional gain resulting from this decision may only be measured in terms of the opportunity costs of sacrificing Project A, as follows:

Estimated annual return from	N
Project B	200,000
Less: Opportunity cost (the sacrifice of the	
estimated annual returns from Project B)	150,000
Advantage of Project B	50,000

The opportunity cost is always a relevant cost concept, when problem of choice faces an enterprise. The measure of the cost of decision is the loss sustained by losing the opportunity of the second best alternative. It is the opportunity cost which must be taken into account in computing the advantage of choosing one alternative rather than the other.

Opportunity cost concept is illustrated in production/operation in the situation – dropping a product line, making or buying a product, selling or further processing a semi-manufactured product etc.

SELF ASSESSMENT EXERCISE

Describe opportunity cost concept.

3.2 Control of Production

Control is linked to the planning function because its purpose is to ensure that and enhance the enterprise's activities (production) is in line with the projected plan. It is affected by means of information feedback system which enables performance to be compared to planned targets. Control is essential in the realisation of plans: long-range and short-term.

In long-range planning, information feedback enhances management assess to what progress is achieved in production towards the realisation of the long-range objectives stated in the plan. In addition, it makes management to review the long-range objectives in the light of new circumstances which may have rendered those objectives unrealistic.

In practice, emphasis in on the control of production (operations) in order to meet the objectives contained in the annual budget which is part of the long-range plan. You should note that information feedback is an integral part of budgetary control procedures which are intended to be sensitive to daily operational variations. This highlights variations from budget plan, thus alerting management for solution actions to be taken promptly.

A pre-requisite to a successful performance of the control function is an efficient information system which reveals the need for corrective action at an appropriate time. This enables managers assess their target to justify the appropriateness of production considering the changes in the environment, monthly and annually. The control function in production is closely linked to the planning function by means of a proper feedback system which provides information on the results of past decisions.

Such in-built system is needed to the assessment of the quality of the decision-making process and its improvement on production.

SELF ASSESSMENT EXERCISE

Briefly discuss control concept in an organisation

4.0 CONCLUSION

You have learned the role of opportunity cost in control of production through choice of products.

5.0 SUMMARY

The summary of this unit are opportunity cost concept and control of production as the affect an enterprise as a going concern.

6.0 TUTOR-MARKED ASSIGNMENT

1. Explain the usefulness of opportunity cost in decision making in business.
2. Discuss the extent of 'control' in production process of an enterprise.

7.0 REFERENCES/FURTHER READING

Glantier MWE & Underdown B. (1978) "Accounting Theory and Practice" Pitma Publishing, London.

Horngren, C.J., Foster, G. Dta, S.M. (2000) "Cost Accounting – A Managerial Emphasis, Prentice Hall,
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