Corporate Finance Session Two

Financial planning, budgeting, Financial analysis and Financial Control

SUMMARY

i. Overview of planning in organizations
ii. Types of planning
iii. Financial planning, its advantages & disadvantages
iv. Forecasting and budgeting
v. Financial analysis and Financial Control

Planning in organizations

In organizations, planning is a management process, concerned with defining goals for company's future direction and determining on the missions and resources to achieve those targets. To meet the goals, managers may develop plans such as a business plan or a marketing plan. Planning always has a purpose. The purpose may be achievement of certain goals or targets.

Advantages of planning

- Planning increases the efficiency of an organization.
- It reduces the risks involved in modern business activities.
- It facilitates proper coordination within an organization.
- It aids in organizing all available resources.
- It gives right direction to the organization.
- It is important to maintain a good control.
- It helps to achieve objectives of the organization.
- It motivates the personnel of an organization.
- It encourages managers' creativity and innovation.
- It also helps in decision making.

Levels of corporate planning

3 levels of corporate planning and control

- Strategic planning
- Tactical planning
- Operational planning

Strategic planning

This is an organization's process of defining its strategy, or direction, and making decisions on allocating its resources to pursue this strategy. In order to determine the direction of the organization, it is necessary to understand its current position and the possible avenues through which it can pursue a particular course of action.

Generally, strategic planning deals with at least one of three key Questions namely:

i. "What do we do?"

ii. "For whom do we do it?"

iii. "How do we excel?"

Strategic planning continued

In many organizations, this is viewed as a process for determining where an organization is going over the next year or—more typically—3 to 5 years (long term), although some extend their vision to 20 years. The output of strategic planning is a strategic plan.

Strategic planning continued

Strategic planning falls into six steps

Step **Action**

1. **Business review and assessment** – What are the company's strengths and weaknesses

2. **Establishment of objectives** - Objectives should be SMARTER

3. **Choice of strategies** - internal development (based on existing products)

   -External development (based on new products)

4. **Evaluation of strategy** - are its projected return sufficient? - Is it feasible?

5. **Establishment of budgets** - a series of annual plans with full supporting schedules analyzed by responsibility

6. **Implementing plan** and monitoring results.

TACTICAL & OPERATIONAL PLANNING

Tactical planning is a shorter term than strategic planning and usually takes place at functional /departmental level. The aim is to ensure that resources are used effectively in achieving strategic objectives.

Examples include pricing decisions, treasury management.

OPERATIONAL PLANNING

- Very short term and very detailed
- Examples include daily delivery schedules, materials usage information and general working capital management

RELATIONSHIP BETWEEN SHORT AND LONG TERM PLANNING

- Financial planning should begin at the strategic level.
- Forecasts should be compared with desired results and strategies developed to bridge the gap between the two.
- From the strategies we can derive tactical plans which will show our actions in the medium term; these can be further broken down into short term plans.

Top Down and Bottom up planning

In **Top down systems**, senior management announce instructions which are then filtered down through the organization. **Bottom up** systems gather information from lower/down the organization and this information is consolidated at high/board level. The best system is usually considered to be a compromise between the two, where managers participate but long term strategy is the responsibility of the board.

The relationship between investment and long term planning

An important part of long term planning is involved with **investment decisions** such as;

- Committing funds to new projects
- Withdrawing from projects (withdraw method)
- External investment decisions
- Divestments decisions.

What is Financial planning?

Financial planning; is the forecasting of the effect of operating and financial policy to quantify the requirements of a firm. **Operating policy** estimates the assets needed and **financial policy** estimates debt and equity to be used.

What is Financial planning?

Financial planning; is the process of assessing the current financial situation in light of the most important financial goals to determine the most efficient and effective way of **allocating** resources towards achieving them. The plan is implemented through coordinated strategies involving investments, tax reduction, risk management, retirement programs, and estate preservation, and then monitored to ensure that it is on track.

What is Financial planning?

Financial planning can also be defined as the process of estimating a firm's financial requirements and determining pattern of financing. It includes determining the objectives, policies, procedures and programmes to deal with financial activities.

Financial planning

Financial planning is the task of determining how a business will afford to achieve its strategic goals and objectives. Usually, a company creates a Financial Plan immediately after the vision and objectives have been set. The Financial Plan describes each of the activities, resources, equipment and materials that are needed to achieve these objectives, as well as the timeframes involved.

What is involved in Financial planning?

Thus, financial planning involves:

1. Estimating the amount of capital to be raised.
2. Determining the pattern of financing i.e., deciding on the form and proportion of capital to be raised (**Equity** versus **Debt) i.e. capital structure decisions**
3. Formulating the financial policies and procedures for procurement, allocation and effective utilisation of funds.

The Financial Planning activities

The Financial Planning activity involves the following tasks;-

i. **Assess** the business environment (**SWOT**)
ii. **Confirm** the business vision and objectives
iii. **Identify** the types of resources needed to achieve these objectives
iv. **Quantify the amount** of resource (labor, equipment, materials)
v. **Calculate the total cost** of each type of resource
vi. **Summarize the costs** to create a budget
vii. **Identify any risks** and issues with the budget set

STEPS TAKEN IN FINANCIAL PLANNING

1. **Setting the financial objectives** i.e. to minimise cost of capital, to maximise firm's value, to ensure optimal use of funds

2. **Formulating the strategy** or work plan

3. **Delegating resources** (HR and Finances)

4. Apply **Standard Operating Procedures** on how to manage the resources

5. **Performance evaluations and benchmarking**

Importance of Financial Planning

i. It facilitates collection of optimum funds

The financial planning estimates the precise requirement of funds which means to avoid wastage and over-capitalization situation.

ii. Helps in determining lowest(minimum) Weighted Average Cost of Capital

This is useful as it maximizes wealth of the firm. Weighted Average Cost of Capital is the cost of combining many sources of capital.

iii. Basis for Financial Control

Financial control is a critically important activity to help the business ensure that it meets its objectives.

Importance of Financial Planning continued

iii. Basis for Financial Control

Financial control is a critically important activity to help the business ensure that the organisation is meeting its objectives. Financial control addresses questions such as:

- Are assets being used efficiently?
- Are the businesses assets secure?
- Does management act in the best interest of shareholders and in accordance with the law and business rules?

Financial control is a critically important activity to help the business ensure that it meets its objectives.

Importance of Financial Planning continued

iv. It Helps in Fixing the most appropriate capital structure

Funds can be arranged from various sources and are used for long term, medium term and short term. Financial planning is necessary for tapping appropriate sources at appropriate time as long term funds are generally contributed by shareholders and debenture holders, medium term by financial institutions and short term by commercial banks.

Importance of Financial Planning

v. Helps in investing finance in right projects

Basing on the Standard Operating Procedures, financial planning suggests how the funds are to be allocated for various purposes by comparing various investment proposals.

vi. Helps in operational activities

The success or failure of production and distribution function of business depends upon the financial decisions as right decision ensures smooth flow of finance and smooth operation of production and distribution.

Importance of Financial Planning continued

vii. Helps in avoiding business shocks and surprises

By anticipating the financial requirements, financial planning helps to avoid shock or surprises which otherwise firms have to face in uncertain situations.

viii. Link between investment and financing Decisions

Financial planning helps in deciding debt/equity ratio and by deciding where to invest this fund. It creates a link between both decisions.

Importance of Financial Planning continued

ix. Helps in formulating good policies or Standard Operating Procedures

These procedures act as a guideline followed when allocating finances e.g. when procuring assets of the firm.

Forecasting and budgeting

- A forecast is a statement of the expected outcome of a given set of events. It follows then that a financial forecast is a statement of the expected outcome in financial terms of a given set of (assumed) events.
- Thus, a business may prepare a budget that forecasts a revenue of, say, USD 10 million and a net income of USD 1 million, if all its strategies and actions happened as planned, and assumptions made (such as interest rate) occur. The budget is used by the management to control the business going forward.

Forecasting and budgeting

- On the other hand, a financial forecast that is not a budget may be produced by the business for a different purpose, e.g. to provide a bank creditor with an idea of how the business will perform going forward. Such forecast can be varied depending on how optimistic or conservative the maker wants it to be.
- Thus, for the same business in the example above, a conservative forecast may be prepared for an investor that indicates a revenue of USHS. 9 million and a net income of USHS. 750,000.

Forecasting and budgeting

- A budget is a forecast, a target, an allocation of resources and measuring tool. It is a financial forecast based on a plan set by management.
- Budgeting is a management function that aims at quantifying the **strategic, tactical and operational plans** of an organization.
- A Budget is a quantitative statement for a defined period of time, which may include planned revenues, expenses, assets, liabilities and cash flows.
- **Feed back information–is** information about actual performance compared to plan.
- **Feed forward–action** is taken on the basis of forecast performance.

The benefits of budgeting include the following

i. **Coordination of the activities**, departments and functions of the organization so that each aspect of the operation constitutes to the overall plan.
ii. **Clarification of authority and responsibility** hence, responsibility accounting through responsibility or budget centres which facilitate management and delegation.
iii. **Formal communication** between top and lower levels of management as regards the long term objectives and practical problems of implementing those objectives

The benefits of budgeting include the following

iv. **Control** is enabled through comparing actual results with planned or budgeted results.

v. **Performance evaluation** as with the ability to meet budgets.

vi. **Motivation tool to managers and staff**

vii. **Discerning trends** – past performance and comparisons (benchmarking)

Budgeting Techniques

Forecasting is a critical part of planning the future of a business. Whether the budget is for the next month, year or decade, business owners attempt to be as accurate as possible.

The four main budgeting techniques include:

- **Incremental Budgeting**,
- **Zero-Based Budgeting**
- **Program Based Budgeting** and
- **Flexed Budgeting**.

Each of these techniques has advantages and drawbacks.

1.Incremental Budgeting

This method examines the previous accounting period and adds a percentage increase or decrease based on the assumptions of the finance manager or accountant. These are usually straight forward inflation, wage increase and business volume growth predictions. A key drawback of this system is that percentages are **added fairly indiscriminately for costs and may not be very detailed.** The company may subsequently raise prices above the market and be uncompetitive.

Incremental budgeting

Incremental budgeting is also referred to as Traditional approach to budgeting

In summary it is an extrapolation of the past (**including its inefficiencies**) where costs are determined by what was spent in the previous period plus a percentage of inflation.

This process could have a problem of inhibiting a change, the relationships between costs, benefits and objectives are rarely put to any searching scrutiny. These problems could be dealt with through the alternative approaches developed.

Incremental budgeting

Incremental budgeting is traditionally used in NPOs and has the following advantages:-

1. Most activities are fundamental or determined by legislation so will continue year after year.
2. A thorough analysis each year of all policies, activities and costs (e.g. in ZBB) is impossible and probably unnecessary.
3. Inter-departmental conflicts are avoided by narrowing the areas open to the incremental changes.

Criticism of incremental budgeting

1. A one year planning cycle is too short for many activities.
2. Incremental budgeting focuses on expenditure headings rather than purposes for spending.
3. Lack of flexibility-no efficiency and economy.

2. Zero-Based Budgeting (ZBB)

In the Zero-Based Budgeting approach,

- You begin with the assumption that every cost has a zero baseline.
- Next, you work with your CFO, accountant or senior managers to determine which costs are **necessary** and which costs can be adjusted.
- This way, all costs are justified from the beginning of the period.
- The main drawback of this procedure is that it takes a **tremendous amount** of time relative to the incremental budgeting approach.

Advantages of Zero Based Budgeting

i. Responds to changes in the business environment
ii. Efficient allocation of resources
iii. Focuses attention on value for money (3Es)- value for money i.e. **economy, efficiency & effectiveness**
iv. Identifies inefficient, obsolete or less cost-effective operations.
v. Challenges the status quo-obliges organizations to closely look into its cost behavior patterns
vi. Greater staff and management knowledge of the operations and activities – **motivation tool**
vii. The documentation required enables a coordinated, in depth knowledge of organization’s operation to be available to all management

Disadvantages of Zero Based budgeting

i. Time consuming and too much paper work.
ii. Requires management skills which may be lacking
iii. May emphasize short-term benefits to the detriment of long term benefits.
iv. Problems in ranking the package and subjective judgments.
v. Carries a wrong impression that all decisions have to be made in the budget and by managers
vi. Staff/management may see the detailed examination of alternatives costs and benefits as a threat not as a challenge.

3. Program based Budgeting (PBB)

Program Based Budgeting format aims at linking resources allocated and service delivery by providing/setting performance targets (outputs and outcomes) upon which resources are allocated, service delivery related outcome indicators do not mention the level of progress towards the set outcomes.

Program Based Budgeting (PBB)

The Program-Based Budgeting structure allocates resources by program or functional area, in alignment with the national development plan. Performance data inform decision making, either as a direct input in budget allocation or as contextual information for budget planning.

A program budget is a budget prepared specifically for a project or program. This type of budget includes expenses and revenues related to one specific project. No revenues or expenses of any other projects are mixed with this particular project.

Characteristics of program based system

There are 4 characteristics or elements of PBS which is

- identifying objectives and Programme,
- Planning and Structuring,
- Developing Performance Indicator and
- Performance Evaluation.

Transition to PBB

- Many countries Uganda Inclusive have initiated transitions to programme-based budgets, as a means to better align with public policy priorities and **enhance accountability and transparency.**
- As such, Uganda has undertaken major budgetary reforms to **optimize budget planning, transparency and accountability**. The recent reform is the shift from sector-based budgeting to programme based budgeting through which the Government seeks to realize better service delivery and to improve value for money in public spending.

Transition to PBB

The Third National Development Plan (NDP III) adopted a Programme Planning Approach (PPA) comprising of eighteen (18) programs that are to be aligned to Programme Based Budgeting. The purpose of programme planning and budgeting is to improve the prioritization of resource allocation using performance indicators.

Advantages of PBB

- It helps in spotting the areas where higher levels of funds are required.
- It adds accountability to the organization.
- Since each project has its respective budget, performance measurement can be done and firm accountability can be set.

Disadvantages of PBB

- **Lack of Flexibility**:

Program based Budgeting can be a disadvantage when there is a lack of flexibility in the budget. It can be especially problematic in case of unexpected costs or expenses.

- **Limited Resources:**

If the organization needs more resources to put towards budgeting, it can create problems.

4. Flexed Budgeting

- A flexed budget is one which is revised while it is current to take account of changing circumstances.
- This is designed to adjust the budgeted cost levels to suit the level of activity actually achieved.
- It is done by analyzing each item of cost into fixed and variable elements thereby coming up with an estimate of expected costs for the actual activity level experienced.
- The process is known as flexing the budget.

Flexed Budgeting

- Flexed budgeting is a way to selectively moderate different budgeting items.
- This is similar to incremental budgeting but is conducted on a case-by-case basis.
- Flexed budgeting is likely to be more accurate than incremental budgeting because it takes a more detailed and advanced approach to each item.
- Managers can also create different scenarios for positive, negative and neutral budget outlooks.
- The drawback is that it can create information overload with too many different possibilities.

Usefulness of Budgeting techniques

i. Using these techniques, managers can **better make risk and budgeting decisions**. However, the techniques are only useful if senior managers carefully follow and enforce their budgets.
ii. Without careful adherence to budgets by all parties, the corporation /company can easily miss profit margins.
iii. Furthermore, they can effect long-term capital budget planning such as debt interest rates and equity offerings. They can also directly contribute to the return on investment of previous and future investors

Problems associated with budgeting

Various problems and difficulties may occur in connection with budgeting but it does not necessarily follow that they will occur in any given organization.

i. There may be **too much reliance** on the technique as a substitute for good management.

ii. The budgetary system **may cause antagonism** and decrease motivation perhaps because of undue pressure or poor human relations.

Problems associated with budgeting

iii. The **inherent lags and delays in the system** may cause the real possibility that the budgets and resulting variances are of little value as a guideline to current operations.

iv. Budgets are **developed around existing organizational structures** and departments which may be inappropriate for current conditions and may not reflect the underlying economic realities.

Problems associated with budgeting

v. There is a major problem in **setting the level of attainment to be included** in budgets and standards.

vi. The very existence of well documented plans and budgets **may cause inertia and lack of flexibility** in adapting to change.

vii. **Variances are just frequently due to changing circumstances**, poor forecasting or general uncertainties and managerial performance.

viii. Traditional budgeting systems have been criticized because they **do not support the drive for continuous improvement,** nor do they relate expenditures to the activities which cause them.

Financial analysis

Nature of financial analysis:

The basis of financial analysis is the information obtained from **financial statements or accounting reports** e.g. **Statement of comprehensive income**, **Statement of financial position**, **Statement of changes in equity**, **Cash flow statement**.

This information is needed to predict, compare, evaluate and analyze the earnings capacity of the firm. It is vital to note that the preparation of financial statements is in itself not enough because they indicate results in absolute terms e.g. current assets = 200m, Current Liabilities = 150m not indicating whether these figures are low or high. Information obtained from financial statements must be analyzed to provide a basis for planning.

Tools/techniques of financial analysis

This can be done using the various tools of financial analysis so as to obtain meaningful information for purposes of decision-making

There are 4 tools/techniques of financial analysis. These are: -

(i) Financial ratios

(ii) Funds flow statements

(iii) Common size statements and index analysis

(iv) Budgeted or forecasted financial statements.

i. Forecasted Financial Statements

Financial forecasting is the process of estimating or predicting how a business will perform in the future. The most common type of financial forecast is an income statement; however, in a complete financial model, all three financial statements are forecasted. Namely:

i. Statement of comprehensive income (income statement

ii. Statement of financial position (Balance sheet)

Iii. Statement of cash flows

The percentage of sales method

- The percentage of sales method is a forecasting method that makes financial predictions based on sales. Financial statement items like the cost of goods sold and accounts receivable appear as a percentage of sales. Companies then use this data to assess their financial future.
- The percentage of sales method links sales data to company balance sheets and income statement. It's one of the most efficient methods a business can use to create a detailed financial outlook statement. While a business can't get precise numbers this way, it's still an effective way to learn about an organization's short-term financial future

Example on forecast Financial statements

a) The financial statements of Buloba plc for the year that has just ended are as follows:

Income statement for Year 2021	***£000***
Credit sales revenue	800
Cost of sales	(600)
Gross profit	200
Selling expenses	(80)
Distribution expenses	(20)
Other expenses	(20)
Profit before taxation	80
Tax (30%)	(24)
Profit for the year	56

Example on forecast Financial statements

Statement of financial position as at the end of Year 2021	*£000*
ASSETS	
Non-current assets	160
Current assets	
Inventories	320
Trade receivables	200
Cash	20
	540
Total assets	700
EQUITY AND LIABILITIES	
Equity	
Share capital – 25p ordinary shares	60
Retained earnings	380
	440
Current liabilities	
Trade payables	240
Tax due	20
	260
Total equity and liabilities	700

Example on forecast Financial statements

A dividend of 50% of the profit for the year was proposed and paid during year.

The following information is relevant for Year 2022:

1. Sales revenue is expected to be 11 per cent higher than in Year 2021
2. The non-current assets of the business are currently operating at full capacity.
3. The tax rate will be the same as in 2021 and 50% of the tax due will be outstanding at the year end.
4. The business intends to maintain the same dividend policy as for 2021
5. Half of the tax relating to Year 2022 will be outstanding at the year end. Tax due at the end of Year 2021 will be paid during Year 2022.

6.Any financing gap will be filled by an issue of long-term loan notes.

Required:

Prepare a projected income statement and statement of financial position for Year 2022 using the per-cent-of-sales method (assuming that Year 2021 provides a useful guide to past experience).

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Income statement for the year ended 31/12/2021				
		Increase	Total	
		11%		
	2021		**2022**	
	Amounts in pounds			
Credit sales revenue	800	88	888	
Cost of sales	(600)	(66)	(666)	
Gross profit	**200**	**22**	**222**	
Selling expenses	(80)	(9)	(89)	
Distribution expenses	(20)	(2)	(22)	
Other expenses	(20)	(2)	(22)	
Profit before taxation	**80**	**9**	**89**	
Taxation	(24)	(3)	(27)	(36.0)
Profit for the year	**56**	**6**	**62**	

Statement of financial position as at 31/12/2021				
		Increase		
	Amounts in pounds			
Assets	**2021**		**2022**	
Non current assets	160	17.60	178	178
Current assets				
Inventories	320	35.20	355	
Trade receivables	200	22.00	222	
Cash	20	2.20	22	
Total Current assets	540	59	599	
Total assets	**700**	**77.00**	**777**	777
Equity and Liabilities				
Equity				
Share capital	60		60	
Retained earnings	380	62.16	442	
	440	**31.08**	**502**	502
Long term debt			**(5)**	
Current liabilities				
Trade payables	240	26.40	266	
Tax due	20		13	
Total Current liabilities	260		280	
Total liabilities	260		275	
Total Equity &Liabilites	**700**		**777**	777

2. FUNDS FLOW STATEMENT

Funds flow statement is:

- A statement showing sources and application of funds for a period of time.
- One of the **valuable tools** in the hand of management to evaluate the uses of funds by the organization and in determining as to how these uses are financed.
- A statement which discloses the analytical information about the different sources of funds and the application of the same in the specific accounting cycle.
- A Statement that incorporates those transactions which change either the amount of current assets or current liabilities (in the form of increased or decreased working capital) or fixed assets, long term loans and equity capital.
- Also called the **'Statement of Sources and Application of Funds or 'Movement Funds Statement'.**
- A statement that attempts at providing a link in the completion of final statements .
- A statement in summary form that indicates the changes occurring in items of financial condition between two different statement of financial position / balance sheet dates .

PREPARATION OF A FUNDS FLOW STATEMENT

Preparation of a funds flow statement can be done on a cash basis by;

- Classifying net balance sheet changes that occur between two points in time.
- Considering changes that increase cash and changes that decrease cash.
- Classifying from the income statement the factors that increase cash and the factors that decrease cash.
- Consolidation of the above information in a sources and uses of funds statements form.

Sources and Uses of funds

Sources

Funds from operations i.e.		
E.A.T /P.A.T		xxx
Add: Depreciation	xx	
Loss on disposal	xx	<u>xxx</u>
		xxx
Less: gain on disposal	xx	<u>xxx</u>
Net funds from operations		<u>xxx</u>

Sources of funds

- A net increase in any liability
- Proceeds from the sale of Shares (Preference and Common).
- A net decreases in any asset other than cash or fixed assets.
- Gross decrease in fixed assets.

Uses of funds

- A net increase in any asset other than cash and fixed assets.
- A net loss from operations i.e. funds lost in operations.
- A gross increase in fixed assets.
- A net decrease in any liability.
- Cash dividends.
- Retirement or purchase of stock.
- Payment of taxes.

Differences between a funds flow statement and a cashflow statement

	Basis of Difference	Funds Flow Statement	Cash Flow Statement
1.	**Basis of Analysis**	Funds flow statement is based on broader concept i.e. working capital.	Cash flow statement is based on narrow concept i.e. cash, which is only one of the elements of working capital.
2.	**Source**	Funds flow statement tells about the various sources from where the funds generated with various uses to which they are put.	Cash flow statement stars with the opening balance of cash and reaches to the closing balance of cash by proceeding through sources and uses.
3.	**Usage**	Funds flow statement is more useful in assessing the long-range financial strategy.	Cash flow statement is useful in understanding the short-term phenomena affecting the liquidity of the business.
4.	**Schedule of Changes in Working Capital**	In funds flow statement changes in current assets and current liabilities are shown through the schedule of changes in working capital.	In cash flow statement changes in current assets and current liabilities are shown in the cash flow statement itself.
5.	**End Result**	Funds flow statement shows the causes of changes in net working capital.	Cash flow statement shows the causes the changes in cash.
6.	**Principal of Accounting**	Funds flow statement is in alignment with the accrual basis of accounting.	In cash flow statement data obtained on accrual basis are converted into cash basis.

Importance of funds flow statement

A Funds flow statement is helpful in:

i. Estimating the budgets or the amount of funds required in future for modernization and expansion programs.

ii. Providing the information on how the funds have been obtained from different sources, i.e. External, Internal etc. and how they have been spent.

iii. Assisting management to know where the profits generated by the corporation went.

iv. Improving on the rate of profit on assets by directing the flow of funds to those activities with higher margins.

v. Assisting management during declaration of dividends, planning of a dividend policy, or issue of bonus shares.

vi. Avoiding the situation of running out of funds by obtaining additional working capital, when required.

Importance of funds flow statement

vii. Planning the temporary investment of idle funds and planning the repayment schedules of long-term debt.

viii. Planning for retirement of long-term debts.

ix. Assessing the relative points of strength and weakness of the organization.

x. Financial planning, decision making and allocating the resources for productive investments

Limitations of a funds flow statement

i. Non-fund transactions are ignored and hence, it cannot provide full financial analysis unless supported by ratio analysis etc….
ii. It is criticized for just re-arranging the financial information obtained from the financial statements.
iii. It is historic statement and it does not indicate any price level changes.
iv. It does not show any changes in working capital for which a separate statement has to be prepared.

Example on Funds flow statement

The following are Financial statements of AZ Ltd for 2021 and 2022

	2021	***2022***
ASSETS	***('000s)***	***('000s)***
Cash	1,060	620
Debtors	1,740	1,000
Prepayments	6,920	10,560
Inventory	8,640	13,660
Net fixed assets	22,260	26,960
TOTAL ASSETS	***40,620***	***52,800***

Example on Funds flow statement

LIABILITIES AND EQUITY	**2021**	**2022**
Creditors	8,260	12,540
Accruals	4,520	6,280
Short term bank loan	2,000	4,700
Common stock	2,000	2,000
Reserves	23,840	27,280
TOTAL LIABILIES & EQUITY	***40,620***	***52,800***

Depreciation for the period was SHS.3,780,000= and the Earnings after tax was SHS.3,440,000

Required: Prepare funds flow statement and comment on the results obtained.

Funds flow statement for AZ Ltd

Sources of funds	**(SHS'000')**	**(SHS'000')**
Operations		
Earnings After Tax	3440	
Add depreciation	3780	7,220
Decrease in debtors		740
Increase in creditors		4,280
Increase in accruals		1,760
Increase in bank loan		2,700
Total sources of funds		***16,700***

Funds flow statement for AZ Ltd

Uses of funds

Gross increase in fixed assets	8480*	
Increase in prepayments	3640*	
Increase in inventory	5020*	(17,140)
Net change in cash		**(440)**

Workings:

* Gross increase in fixed assets	(26,960+3780-22.260) =	**8480**
*Increase in prepayments	(10,560- 6,920) =	**3640**
* Increase in inventory	(13,660-8,640) =	**5020**

The funds flow statement shows that AZ Ltd has uses of funds exceeding its sources of funds. The net results of change in cash being negative (440m) is mainly due to over expansion of capacity (fixed assets) and accumulation of stocks.

Cash budget

- A good cash flow forecast, also called a cash flow budget, is at the core of the corporate financial process and is important for corporate survival.
- How can you get somewhere if you don't have a map to follow? How can you ensure that you will have the financial resources available to fund your company's growth or to just "make payroll" if you don't plan out the cash receipts and disbursements for the week, month, and year? You can't!
- Your cash flow budget doesn't have to be intricate to be effective. You can use a spreadsheet, purchase a simple budgeting program, or even do a forecast by hand. The important thing is that you have one.

Cash budget

- To create one, use your financial or income statement monthly forecast and a calendar year for financial reporting, and do the following:
- Outline the expected collections from your budgeted monthly invoicing. If your terms are net 30 and your clients typically pay in 45 days, use this fact as your basis for forecasts. For example, under that scenario, March's invoices become May's collections.
- For the first months of the year, add in when you expect to collect existing accounts receivable. If you have SHS.20,000,000 in accounts receivable that were all invoiced in December of the prior year, then, based on the above assumption, the SHS.20,000,000 should be added as projected cash inflow for the second month of your budget, which is February.

Cash budget

- Identify any other expected cash receipts. In your cash receipts forecast, include proceeds from bank loans or equity transactions, refunds, and customer deposits.
- Start looking at expenses and cash disbursements. Look at your expenses for the prior and current months and identify when they will be paid. Items such as payroll, rent, leases, travel, and entertainment are either recurring or paid out in the current budget month. Also, identify what fixed asset purchases and loan repayments you will make during the year.
- Review your accounts payable balance at the end of December for the prior year, and identify when these items will be paid. Add the amounts to your cash disbursements forecast.

Steps in the preparation of a cash budget

- Preparing a cash flow budget involves four steps:

i. Preparing a sales forecast
ii. Projecting your anticipated cash inflows
iii. Projecting your anticipated cash outflows
iv. Putting the projections together to come up with your cash flow bottom line

- An estimation of the cash inflows and outflows for a business or individual for a specific period of time. Cash budgets are often used to assess whether the entity has sufficient cash to fulfill regular operations and/or whether too much cash is being left in unproductive capacities.

Format of a cash budget

Details	Jan	Feb	march	April	May	June
Cash receipts:	xx	xx	xx	xx	xx	xx
Collections from debtors		xx	xx	xx	xx	xx
Other sources:						
-loans		xx	xx	xx	xx	xx
-overdrafts etc..			xx	xx	xx	xx
Total cash receipts	xx	xxx	xxx	xxx	xxx	xxx
Cash disbursements:						
-raw materials	xx	xx	xx	xx	xx	xx
-Rent	x	x	x	x	x	x
-Dividends	x	x	x	x	x	x
-salaries	xx	xx	xx	xx	xx	xx
-Other expenses	x	xx	x	x	x	x
- Payment to creditors etc…	xx	xx	xx	xx	xx	xx
Total cash disbursements	xxx	xxx	xxx	xxx	xxx	xxx
Financing section	xx	xx	xx	xx	xx	xx
Surplus/Deficit	xx	xx	xx	xx	xx	xx
Ending net cash balance	xx	xx	xx	xx	xx	xx

Example

BMK ltd cashier faced shortages which were a result of using unrealistic forecasts at the planning stage .This year 2020/2021 the following information is available:

Expected sales targets for 2022

	UG.SHS
May	60 Million
June	100 Million
July	120 Million
August	140 Million
September	160 Million
October	120 Million
November	60 Million

EXAMPLE CONTINUED

- Cash sales are 30% of total sales. The credit customers will be expected to settle their bills as: 50% of credit sales in the month of sales, 30% of credit sales one month after sale, 10% of credit sales two months after sale. The remainder is expected to be bad debts. Monthly expenses include salaries SHS.20 million rent Shs.5million.
- The expected cash and bank balances as at 30 June 2021 to be SHS. 5 million and SHS. 4 million respectively.

Example continued

- A loan of Shs.30 million to be received on 30 August and to be repaid on 15th November 2021.Monthly interest of 10% is to be paid.
- The company car will be bought and paid fully in September for SHS. 30 million. Purchases to be made one month before sale but paid in the month of sale. The firm expect a gross profit margin of 30%.

Required:

A)Prepare a cash budget for the period May to November FY 2021/2022

B)Comment on the suitability of monthly financial plans

C)Advise management of BMK ltd on possible actions to address cash shortages.

BMK ltd. cash budget For Nov- Feb 2010
All figures in SHS. '000'

Details	May	June	July	August	Sept	October	Nov	TOTALS
Total sales (100%)	**60**	**100**	**120**	**140**	**160**	**120**	**60**	**760**
Credit sales (70%)	**42**	**70**	**84**	**98**	**112**	**84**	**42**	**532**
Cash sales (30%)	18	30	36	42	48	36	18	228
Collections during month of sale (50%)	21	35	42	49	56	42	21	266
Collection from debtors after1month (30% of credit sales)	-	12.6	21	25.2	29.4	33.6	25.2	147
Debtors (2months)	-	-	4.2	7	8.4	9.8	11.2	40.6
Loan	-	-	-	30	-	-	-	30m
Total cash inflows	**39**	**77.6**	**103.2**	**153.2**	**141.8**	**121.4**	**75.4**	**711.6**
Cash outflows:								
Purchases (70% of total sales)	42	70	84	98	112	84	42	532
salaries expenses	20	20	20	20	20	20	20	140
Rent	5m	5m	5m	5m	5m	5m	5m	35
loan payment	-	-	-	-	-	-	30m	30m
Interest(10% 0f loan)	3 m	3 m	3 m	3 m	3 m	3 m	3 m	21
Company car	-	-	-	-	30m	-	-	30m
Total cash disbursements	**70**	**98**	**112m**	**126m**	**170m**	**112m**	**100m**	**788**
Net cash balance	(31)	(20.4)	(8.8)	27.2	(28.2)	9.4	(24.6)	
Cash b/f	-		9m	0.2	27.4	(0.8)	8.6	
Totals			0.2	27.4	(0.8)	8.6	(16)	

Exercise

Hidden Valley Medical Centre (HVMC) provides a wide range of hospital services in It's Kampala community. The following information has been gathered for you:-

Billings (sales):

Month	Actual/Estimated Billings in SHS.
April	4,500,000
May	5,000,000
June	5,000,000
July	4,500,000
August	5,000,000
September	5,500,000

Historical patterns of collections:-

Collected during month of service	20
Collected during month following service	50
Collected during second month after service	20
Uncollectible	10

Purchases:

Month	Purchases in SHS.
June	1,200,000
July	1,250,000
August	1,500,000
September	1,850,000

Exercise continued

All purchases are made on account (i.e. on credit) and are paid in the month following purchase.

Other Revenue:

Other revenue of SHS.175, 000 per month is expected to be received.

Operating Expenses:

Operating expenses are expected to be SHS.1, 625,000 per month including depreciation of SHS.125, 000 per month. All operating expenses are paid in the month they are incurred.

Interest expense is shs.1, 800,000 per annum. Interest payments of SHS.450, 000 are made on the last day of each quarter (i.e. 31st March, 30th June, 30th Sept, and 31st Dec)

Management is purchasing some new medical equipment on 30th September, 2010 for shs.3, 800,000.

Exercise continued

Cash Balance:

The Centre had a cash balance of shs.300, 000 on 1st April, 2010.

Tax

All the amounts given above are exclusive of VAT.

As this business provides health services they are not required to charge VAT on their services provided. The business still pays VAT on the services or goods that it purchases. The business claims the VAT that it has paid back from URA on a monthly basis. The business normally receives this refund in the month after the month when the VAT was paid.

The refund expected to be received in July is SHS.250, 000.

You are required: Prepare HVMC's cash budget for six months: April May, June, July, August and September 2010.

Cash management

Cash management strategies

I) Cash planning

Cash inflows and outflows should be planned to project a cash surplus or deficit for each period of planning. In this case a cash budget should be prepared.

ii) Managing the cash flows:

Cash flow refers to the movement of cash into and out of a business. Watching the cash inflows and outflows is one of the most pressing management tasks for any business. The outflow of cash includes those cheques you write each month to pay salaries, suppliers, and creditors. The inflow includes the cash you receive from customers, lenders, and investors.

Cash management

iii. Positive Cash Flow

If its cash inflow exceeds the outflow, a firm has a positive cash flow. A positive cash flow is a good sign of financial health, but is by no means the only one.

iv. Negative Cash Flow

- If its cash outflow exceeds the inflow, a firm has a negative cash flow. Reasons for negative cash flow include:
- too much or obsolete inventory and
- poor collections on accounts receivable (what your customers owe you). If the company can't borrow additional cash at this point, it may be in serious trouble.
- The flow of cash should properly be managed .Cash inflows should be accelerated while cash outflows should be decelerated as much as possible.

Financial analysis & control

Financial analysis is the assessment of two main features/characteristics of the organization. These are;

(i) Operating performance of the firm over a given time of period.

(ii) Financial position of the firm as at given points in time

This is done to determine the strengths and weaknesses in the financial position and operating results of the firm that arise as a result of financial decisions taken by the firm i.e. **investment, financing, working capital management and earnings management decision.**

Purpose of financial analysis

Financial analysis is vital for those parties that want to make a decision about a business i.e. stakeholders **(owners, creditors, employees, management, government and society in general).** These stakeholders normally want to make more informed, rational and objective decisions about the firm. The financial analysis is concerned with:-

Purpose of financial analysis

(**i)The liquidity position of the firm** i.e. the ability of the firm to easily meet its short-term obligations as and when they fall due. This information is essentially needed by short-term creditors (including banks), short-term suppliers and investors interested in buying short-term securities of the firm (**e.g**. **commercial paper**).

(**ii)The profitability position of the firm** i.e. is the business generating adequate return to justify commitment of funds in the business? This information is of interest to present and potential investors and long term lenders.

Purpose of financial analysis

(iii) **The solvency of the firm** i.e. the ability of the firm to provide for its long-term obligations and long term survival given the present capital structure. Such information would be important to investors, employees and long term lenders.

(iv) **The efficiency of management** in using resources at their disposal i.e. are the resources used efficiently to generate revenue or turnover? This would be of interest to owners of the business and management since it is entrusted with the assets of the firm.

(v) **Market valuation of the business** i.e. how does the market value the business. This information would be required by potential investors.

Financial Ratio Analysis

Meaning of Ratio Analysis.

It is a tool used by individuals or organizations to conduct a **quantitative analysis** of information in a Corporation / company's financial statements. Ratios are calculated from current year numbers and are then compared to previous years, other companies, the industry, or even the economy to judge the performance of the company.

There are many ratios that can be calculated from the financial statements pertaining to a company's performance, activity, financing and liquidity. Some common ratios include the price-earnings ratio, debt-equity ratio, current ratio , Acid test ratio, earnings per share, asset turnover and working capital.

Purpose and types of ratios

Financial ratios **quantify** many aspects of a business and are an integral part of financial statement analysis. The significance of a ratio can only truly be appreciated when:

- It is compared with other ratios in the same set of financial statements.
- It is compared with the same ratio in previous financial statements (trend analysis).
- It is compared with a standard of performance (industry average). Such a standard may be either the ratio, which represents the typical performance of the trade, or industry, or the ratio which represents the target set by management as desirable for the business

Financial ratios are categorized according to the financial aspect of the business which the ratio measures.

Types of ratios

Financial ratios are categorized according to the financial aspect of the business which the ratio measures

1. **Liquidity ratios** measure the availability of cash to pay debt. It is vital to the survival of a business that there are sufficient liquid resources available to meet maturing obligations.
2. **Activity/efficiency** ratios measure how quickly a firm converts non-cash assets to cash assets. Ratios may be used to measure the efficiency with which particular resources have been used within the business
3. **Gearing / leverage ratios are also called Solvency or Debt ratios and they** measure the firm's ability to repay long-term debt. Financial Gearing is the relationship between the contribution to financing the business made by the owners of the business and the amount contributed by others in the form of loans.

Types of ratios

4. **Profitability ratios** measure the firm's use of its assets and control of its expenses to generate an acceptable rate of return. Businesses generally exist with the primary purpose of creating wealth for their owners. **(SWM / SVM)**
5. **Investment ratios are also called Market ratios** and they measure investors' response to owning a company's stock and also the cost of issuing stock. Certain ratios are concerned with assessing the returns and performance of shares in a particular business from the perspective of shareholders who are not involved with the management of the business

1. Liquidity ratios

Liquidity ratios refer to a measure of the firm's ability to meet its maturing financial obligations or settling its short-term obligations using current assets. From them, much insight can be obtained into the present cash solvency of a firm and it's ability to remain solvent in the events of adversities. Essentially, we wish to compare short term obligations(creditors) with the short term resources (Cash in hand and at bank, Inventory, Debtors) available to meet these obligations. Liquidity ratios include;

Liquidity ratios

LIQUIDITY RATIOS

1. Current ratio

Current Ratio = $\frac{\text{Current assets}}{\text{Current Liabilities}}$ e.g. $\frac{400m}{100m}$ = 4:1

This means that current assets would have to decline by four times before the firm can fail to meet its short-term obligations. Generally, the higher the ratio, the healthier the liquidity positions. A ratio of 2:1 is conventionally recommended but the best ratio is the one, which matches the situation in the business and its nature.

A high current ratio is undesirable because it indicates an accumulation of current assets which assets are idle hence earn no return. On the other hand, a low ratio is also undesirable because it indicates that the firm's liabilities are over weighing the current assets. A suitable ratio that avoids both extremes should be sought. This requires firms to find out the average ratio of the industry so that they compare with the firms' ratios

Liquidity ratios

2. Acid-test ratio. The acid-test ratio is also called the quick asset ratio. Quick assets are defined as cash, marketable (or short-term) securities, and accounts receivable and notes receivable, net of the allowances for doubtful accounts. These assets are considered to be very liquid (easy to obtain cash from the assets) and therefore, available for immediate use to pay obligations. The acid-test ratio is calculated by dividing quick assets by current liabilities.

Quick ratio Continued

2. ***Quick asset ratio/Acid test ratio***

This helps to overcome the weaknesses in the current ratio such as the inclusion of slow moving items (i.e. inventory and slow paying or bad debtors). Quick assets are those that can be quickly converted into cash with minimum loss.

$$Q.A.R = \frac{\text{Current assets} - \text{Inventories}}{\text{Current liabilities}}$$

Generally a quick ratio of 1:1 is considered appropriate. However it is important to note that an appropriate ratio depends on the nature of the firm and condition under which it operates. It is advisable to keep a ratio as much as possible near the industry levels.

Activity / Efficiency ratios

These ratios compare the assets of a company to its sales revenue. Asset management ratios indicate how successfully a company is utilizing its assets to generate revenues. Analysis of asset management ratios tells how efficiently and effectively a company is using its assets in the generation of revenues. They indicate the ability of a company to translate its assets into the sales. Activity ratios in simple terms, indicates how efficiently a firm manages its assets to generate sales. These ratios can be classified as follows:

Efficiency ratios

EFFICIENCY RATIOS

These show how efficiently the resources of a firm are being utilized in as far as generation of sales revenue is concerned.

Using inventory – Try to find out whether management is using inventory efficiently. There are 2 dimensions:-

(i) Consider the number of times inventory has contributed to sales

(ii) The length of time it takes to convert an item of inventory into sales.

$$\text{Rate of inventory turnover} = \frac{\text{Cost of sales}}{\text{Av. Inventory}}$$

$$\text{Av. Inventory} = \frac{\text{Op. inv} + \text{Cl. Inv}}{2}$$

$$= \frac{500}{250} = 2 \text{ times}$$

Hence during the year we can turn inventory into sales two times.

If RIT = 1 – Poor because convert once if RIT = 365 good. The higher the inventory turnover, the more efficient is the use of inventory.

Efficiency ratios continued

Inventory turnover period = $\frac{\text{Av. Inventory}}{\text{Cost of sales}}$ x No. of days in the year

The lower the inventory turnover period the more efficient is the firm.

Read: Debtors – Debtors turnover period and rate of debtors known

RDT – $\frac{\text{Credit Sales}}{\text{Av. Debtors.}}$ – Use credit sales not cash

Read: Asset turnover period and rate of creditors turnover

RCT- $\frac{\text{Credit purchases}}{\text{Average creditors}}$

This is done to find out if you have more liberal terms to your suppliers.

Efficiency ratios continued

Debtors turnover = $\frac{\text{Credit sales}}{\text{Average debtors}}$

Debtors' turnover indicates the number of times debtors turn over each year. Generally, the higher the value of debtors' turnover, the more efficient is the management of credit.

Efficiency ratios continued

i) Fixed assets turnover i.e. $\frac{\text{Sales}}{\text{Fixed assets}}$

The higher the ratio, the more efficient is the firm in utilization of its assets.

(ii) Total assets turnover i.e. $\frac{\text{Sales}}{\text{Total assets}}$

Profitability ratios

These are ratios which measure the firm's efficiency in generating profits. These ratios are of interest to investors who would like to invest in the most profitable companies around. Profitability ratios are of two types namely; profitability in relation to sales and profitability in relation to investment.

Profitability in relation to sales

***(i) Gross profit margin*;** is the ratio of gross profit (gross sales less cost of sales) to sales revenue. It is the percentage by which gross profits exceed production costs. Gross margins indicate the efficiency of operations as well as how products are priced. Gross margin is a good indication of how profitable a company is at the most fundamental level, how efficiently a company uses its resources, materials, and labour. It is usually expressed as a percentage, and indicates the profitability of a business before overhead costs; it is a measure of how well a company controls its costs. The higher the Gross profit percentage indicates better performance of the firm.

$$\frac{\text{Gross profit}}{\text{Sales}} \text{X } 100$$

Gross profit margin$= \frac{Gross\ profit}{Revenue}$X100%

ii) Net profit margin

Net profit margin (profit margin, net margin, return on revenue); is a more specific ratio of profitability. It tells us the relative efficiency of the firm after taking into account all expenses and income taxes but not extra ordinary charges. It is very useful when comparing companies in similar industries. A higher net profit margin means that a company is more efficient at converting sales into actual profit.

Net profit margin= $\frac{\text{Net Profit after tax}}{\text{Total Sales}}$ x 100

Net profit margin = $\frac{Profit\ (after\ tax)}{Revenue} X\ 100\%$

iii. Operating profit margin

Operating profit margin; is a ratio used to calculate the percentage of profit a company produces from its operations, prior to subtracting taxes and interest charges. The margin is also known as EBIT (Earnings Before Interest and Tax) Margin.

Operating profit margin

$$= \frac{Operating\ Profit\ (EBIT)}{Revenue} X100\%$$

Profitability in relation to investment

(i) Return on Equity (ROE); is the amount of net income returned as a percentage of shareholders' equity. It tells us the earning power on the shareholder's book investment and is frequently used in comparing two or more firms in an industry. It measures how profitable a company is for the owner of the investment, and how profitably a company employs its equity.

- ROE= $\frac{\text{Earnings after tax} - \text{preferred stock dividend}}{Shareholder's\ Equity}$

ii) Return on capital employed (ROCE

This is a measure of the returns that a business is achieving from the capital employed, usually expressed in percentage terms. Capital employed equals a company's Equity plus Non-current liabilities (or Total Assets − Current Liabilities), in other words all the long-term funds used by the company. ROCE indicates the efficiency and profitability of a company's capital investments. ROCE should always be higher than the rate at which the company borrows otherwise any increase in borrowing will reduce shareholders' earnings, and vice versa; a good ROCE is one that is greater than the rate at which the company borrows.

- ROCE= $\frac{\text{EBIT}}{\text{Capital employed}}$

iii) Return On Assets

This is a financial ratio that shows the percentage of profit that a company earns in relation to its overall resources (total assets). Return on assets is a key profitability ratio which measures the amount of profit made by a company per dollar of its assets. It shows the company's ability to generate profits before leverage, rather than by using leverage. Unlike other profitability ratios, such as return on equity (ROE), ROA measurements include all of a company's assets – including those which arise from liabilities to creditors as well as those which arise from contributions by investors.

Return On Assets

So, ROA gives an idea as to how efficiently management use company assets to generate profit, but is usually of less interest to shareholders than some other financial ratios such as ROE.

- **ROA**=$\frac{\text{Earnings after Tax}}{Total\ assests}$
- **Return on total assets (ROTA)** = $\frac{\text{EAT}}{\text{TOTAL ASSETS}}$

Return on Investment (ROI)

iii) Return on Investment (ROI) = $\frac{\text{Earnings after tax (EAT)}}{\text{Investment}}$

Investment can be defined in terms of total assets employed, net assets employed, ordinary share capital, preference share capital.

Gearing/Leverage ratios

GEARING/LEVERAGE RATIOS

These help to assess whether the firm can meet its long-term obligations and hence be able to survive in the long run.

(a) Debt Equity ratio

$$= \frac{\text{Long term debt}}{\text{Total equity}}$$

- shows extent to which the firm finances itself (K structure) using Debt and equity.

The higher the proportion of debt to equity the higher the leverage of the firm. Hence have to meet interest obligation and principal amounts.

(b) Debt: Total Assets

$$= \frac{\text{Debt}}{\text{Total assets}}$$

- shows the extent to which firms' assets have been financed using borrowed funds.

(c) ***Times interest earned ratio*** $= \frac{\text{EBIT}}{\text{Annual interest charge.}}$

It shows the number of times that the earnings would cover interest before they decline to zero. A higher ratio means that the solvency position of the firm is good.

Investment ratios

INVESTMENT RATIOS

These show the evaluation of the firm in the capital market. They include;

(a) EPS i.e. the amount of Net profit after tax attributable to shareholders.

$$EPS = \frac{EAT}{\text{Number of outstanding shares}}$$

(b) $$DPS = \frac{\text{Total dividend for the year}}{\text{Number of shares}}$$

The ratio indicates the dividend payment or retention of a firm.

(c) $$\text{Price earning ratio} = \frac{\text{Price per share}}{\text{Earnings per share}}$$

3. Activity / Efficiency ratios

These show how efficiently the resources of a firm are being utilized in as far as generation of sales revenue is concerned

Activity / Efficiency ratios

i. *Inventory turnover*. The inventory turnover ratio measures the number of times the company sells its inventory during the period. It is calculated by dividing the cost of goods sold by average inventory.

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

ii. Debtors turnover

$$\textbf{Debtors turnover} = \frac{\text{Credit sales}}{\text{Average debtors}}$$

Debtors' turnover indicates the number of times debtors turn over each year. Generally, the higher the value of debtors' turnover, the more efficient is the management of credit.

Solvency Ratios

Solvency ratios are used to measure long-term risk and are of interest to long-term creditors and stockholders.

i. *Debt to total assets ratio*. The debt to total assets ratio calculates the percent of assets provided by creditors. It is calculated by dividing total debt by total assets. Total debt is the same as total liabilities.

$$\text{Debt to total assets ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

ii. *Times interest earned ratio*. The times interest earned ratio is an indicator of the company's ability to pay interest as it comes due. It is calculated by dividing earnings before interest and taxes (EBIT) by interest expense.

Solvency Ratios

$$\text{Times interest earned ratio} = \frac{\text{EBIT}}{\text{Annual interest charge}}$$

The times interest earned ratio shows the number of times that the earnings would cover interest before they decline to Zero. A higher ratio means that the solvency of the firm is good enough.

Investment ratios

i. Earnings per share (EPS) = $\frac{\text{EAT}}{\text{Number of outstanding shares}}$

ii. Dividends per share (DPS) =

$$\frac{\text{Total dividend for the year}}{\text{Number of shares}}$$

This ratio indicates the dividend payment or retention of a firm

iii. Price Earnings ratio = $\frac{\text{Price per share}}{\text{Earnings per share}}$

Trend analysis and industry comparison

From ratio analysis, we obtain indicators about the different positions of the business. These indicators form a basis of decision making . However, these ratios alone do not provide a clear assessment of the firm's position and performance and therefore trend analysis and industry comparison have to be done. Trend analysis helps to determine if the firm's position / performance is declining, improving or stagnant over a specified period

Trend analysis

Year	2017	2018	2019	2020	2021
	6.5:1	4.5:1	4.2: 1	3.6:1	2.1:1

In addition to trend analysis, you have to compare the firm's ratios with those of other firms in the same industry to determine if the firm is above average , below average or same average.

Evaluation of financial Ratios

Importance of Ratios:

1. **Financial ratios are very important in providing signals** to decision makers about the health of various positions of the business. As a financial analyst, it is important to understand the information needs for the decision maker for whom you are conducting the analysis.

2.Ratios are a powerful tool of analysis if they are properly used. Ratios are properly used if they are in context either of Historical trends from which future projections can be made or through comparison with relatively similar firms in the industry.

Limitations of ratios

1. **Ratios deal mainly in numbers** – they don't address issues like product quality, customer service, employee morale and so on (though those qualitative factors play an important role in financial performance)

2. **Ratios largely look at the past**, not the future. However, investment analysts will make assumptions about future performance using ratios.

Limitations of ratios

3.Ratios are most useful when they are used to compare performance over a long period of time or against comparable businesses and an industry – this information is not always available

4. **Financial information can be "massaged" or manipulated** in several ways to make the figures used for ratios more attractive. For example, many businesses delay payments to trade creditors at the end of the financial year to make the cash balance higher than normal and the creditor days figure higher too.

Limitations of ratios

5. **Problem in getting comparable information.** You must compare likes to have realistic information. In practice, it is impossible to consciously find two companies that are identical in every sense.

6.**Use of outdated information.** Historical accounting information is the primary source of data used for investment ratio analysis. This alone is enough to render every other factor useless. It is hard to make any meaningful judgment from information that is already out of date.

Limitations of ratios

7. **Ratios are subjective**. No two humans will give two exact judgments even while presented with the same information. Personal sense of judgment must be introduced and this makes it prone to having personal investment bias.

8. **Analysis cannot be used in isolation.** It must be combined with some other information from other sources. This makes it possible for element of wrong judgment to be introduced into the decision making variables through the introduction of information from unreliable and unverifiable source.

Question one for group discussion

1. Explain the importance of financial planning, budgeting, financial analysis and control in any firm of your choice

2. Giving examples and illustrations explain the 3 levels of corporate financial planning and control.

3. Giving advantages and disadvantages in each case Distinguish between Incremental, Zero based and flexed budgeting techniques

4.Giving examples categories of ratios in each case explain what you understand by the term 'Ratio Analysis'

Questions two for group discussion

a)Explain the importance of ratio analysis and the reasons why you think ratio analysis should be applied with a lot of caution.

b) Explain the different types of ratios you know

b)The following table contains information relating to Soft drinks Uganda ltd for the years ended 31st December, 2017 and 31st December, 2018.

Details	Year ended 31st Dec 2017	Year ended 31stDec 2018
Cash on hand	76,500,000	35,700,000
Accounts receivable	306,000,000	346,000,000
Inventory	382,000,000	637,500,000
Total current assets	764,500,000	1,019,200,000
Land and buildings (net)	60,000,000	73,000,000
Machinery (net)	188,000,000	208,000,000
Other fixed Assets	37,500,000	40,500,000
Total assets	1,050,000,000	1,340,700,000
Notes payable (12%)	-	127,500,000
Accounts payable	122,500,000	195,000,000
Accruals	61,000,000	71,000,000
Total current liabilities	183,500,000	393,500,000
Long term debt (10%)	300,000,000	300,000,000
Common stock (50,000 shares)	359,000,000	359,000,000
Retained earnings	208,000,000	289,000,000
Total liabilities and Equity	1,050,500,000	1,341,500,000
Income statement	2017	2018
Net sales	3,315,000,000	3,442,500,000
Cost of goods sold	2,652,000,000	2,754,000,000
Gross operating profit	663,000,000	688,500,000
General and Administrative expenses	275,000,000	300,500,000
Depreciation	102,000,000	120,700,000
Interest	30,000,000	43,500,000
Net income before taxes	256,000,000	223,800,000
Taxes (50%)	128,000,000	111,900,000
Net income	128,000,000	111,900,000

Question two for group discussion

You are also provided with the following soft drinks industry data for the year 2018:

Current ratio: 2.8, Return on shareholders equity: 16.8%
Inventory turnover 7.0 times, Total debt to total assets ratio 46%
Average collection period: 45 days, operating profit margin 8.5 %

Total Assets turnover 2.6 times, Return on totals assets 9.1%

8c) **Required:** using the provided information:

i) Compare the performance of Soft drinks Uganda ltd over the two years relative to the soft drinks industry averages on the basis of liquidity, profitability , solvency and efficiency

ii) To what extent would you rely on the above results for decision making purposes. Give reasons for your answer

Question three for group discussion

- Expand PLC is a public company which has grown in recent years by acquiring established businesses.
- The following financial statements for two potential target companies are shown below
- They operate in the same industry sector and Expand PLC believes their shareholders would be receptive to a takeover bid.
- An indicative price for 100% acquisition of the companies is $12 million each.

Statements of comprehensive income for the year ended 30 September 2022

	Kandid	Kovert
	$'000	$'000
Revenue	25,000	40,000
Cost of sales	(19,000)	(32,800)
Gross profit	6,000	7,200
Distribution and administrative expenses	(1,250)	(2,300)
Finance costs	(250)	(900)
Profit Before Tax	4,500	4,000
Income tax expense	(900)	(1,000)
Profit for the year	3,600	3,000

Statements of financial position as at 30

Non-current assets	nil	3,000
Property	4,800	2,000
Owned plant	nil	5,300
Leased plant	4,800	10,300
Current assets		
Inventory	1,600	3,400
Trade receivables	1,600	5,100
Bank	1,100	200
	4,800	8,700
Total assets	9,600	19,000

Statements of financial position contd

Equity and liabilities		
Equity		
Equity shares of $1 each	**1,000**	**2,000**
Property revaluation surplus	**nil**	**900**
Retained earnings	**1,600**	**2,700**
	2,600	**5,600**
Non-current liabilities		
Finance lease obligation	**nil**	**4,200**
5% loan notes (31 December 2016)	**5,000**	**nil**
10% loan notes (31 December 2016)	**nil**	**5,000**
	5,000	**9,200**
Current liabilities		
Trade payables	**1,250**	**2,100**
Finance lease obligation	**nil**	**1,000**
Taxation	**750**	**1,100**
	2,000	**4,200**
Total equity and liabilities	**9,600**	**19,000**

The following Ratios were calculated for you

	Kandid	Kovert
Return on year-end capital employed (ROCE)	62·5%	31·0%
(finance lease obligations are treated as debt)		
Net asset (taken as same figure as capital employed) turnover	3·3 times	2·5 times
Gross profit margin	24·0%	18·0%
Profit margin (before interest and tax)	19·0%	12·3%
Current ratio	2·4:1	2·1:1
Closing inventory holding period	31 days	38 days
Trade receivables' collection period	31 days	47 days
Trade payables' payment period (using cost of sales)	24 days	23 days
Gearing (debt/(debt + equity))	65·8%	64·6%

Required:

Using the above information, assess the relative performance and financial position of Kandid and Kovert for the year ended 30 September 2022 in order to assist the directors of Expand PLC to make an optimal acquisition decision.

Question four for group discussions

Using hypothetical examples, explain the meaning of:

a) Common size statements

b) index analysis

END OF SSSION 2