FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF BUSINESS IN COLLABORATIOIN WITH INSTITUTE OF DISTANCE LEARNING

ACF 361-BUSINESS FINANCE

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FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

BUSINESS FINANCE

COURSE OVERVIEW

Unit 1 An overview of Finance

Unit 2 Financing a Business

Unit 3 Financial Planning and Projected Financial Statements

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UNIT 1

OVERVIEW OF BUSINESS FINANCE

INTRODUCTION

The field of finance is broad and dynamic. Finance influences everything that firms do, from hiring personnel to building factories to launching new advertising campaigns. Because there are important financial dimensions to almost any aspect of business, there are many financially oriented career opportunities for those who understand the basic principles of finance described in this textbook. Even if you do not see yourself pursuing a career in finance, you'll find that an understanding of a few key ideas in finance will help make you a smarter consumer and a wiser investor with your own money.

WHAT IS FINANCE?

Finance can be defined as the science and art of managing money. At the personal level, finance is concerned with individuals' decisions about how much of their earnings they spend, how much they save, and how they invest their savings. In a business context, finance involves the same types of decisions: how firms raise money from investors, how firms invest money in an attempt to earn a profit, and how they decide whether to reinvest profits in the business or distribute them back to investors. The keys to good financial decisions are much the same for businesses and individuals, which is why most students will benefit from an understanding of finance regardless of the career path they plan to follow. Learning the techniques of good financial analysis will not only help you make better financial decisions as a consumer, but it will also help you understand the financial consequences of the important business decisions you will face no matter what career path you follow.

CAREER OPPORTUNITIES IN FINANCE

Careers in finance typically fall into one of two broad categories: (1) financial services and (2) managerial finance. Workers in both areas rely on a common analytical "tool kit," but the types of problems to which that tool kit is applied vary a great deal from one career path to the other.

Financial Services

Financial services is the area of finance concerned with the design and delivery of advice and financial products to individuals, businesses, and governments. It involves a variety of interesting career opportunities within the areas of banking, personal financial planning, investments, real estate, and insurance.

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Managerial Finance

Managerial finance is concerned with the duties of the *financial manager* working in a business. **Financial managers** administer the financial affairs of all types of businesses—private and public, large and small, profit seeking and not for profit. They perform such varied tasks as developing a financial plan or budget, extending credit to customers, evaluating proposed large expenditures, and raising money to fund the firm's operations. In recent years, a number of factors have increased the importance and complexity of the financial manager's duties. These factors include the recent global financial crisis and subsequent responses by regulators, increased competition, and technological change. For example, globalization has led U.S. corporations to increase their transactions in other countries, and foreign corporations have done likewise in the United States. These changes increase demand for financial experts who can manage cash flows in different currencies and protect against the risks that arise from international transactions. These changes increase the finance function's complexity, but they also create opportunities for a more rewarding career. The increasing complexity of the financial manager's duties has increased the popularity of a variety of professional certification programs outlined in the Focus on Practice box below. Financial managers today actively develop and implement corporate strategies aimed at helping the firm grow and improving its competitive position. As a result, many corporate presidents and chief executive officers (CEOs) rose to the top of their organizations by first demonstrating excellence in the finance function.

LEGAL FORMS OF BUSINESS ORGANIZATION

One of the most basic decisions that all businesses confront is how to choose a legal form of organization. This decision has very important financial implications because how a business is organized legally influences the risks that the firm's owners must bear, how the firm can raise money, and how the firm's profits will be taxed. The three most common legal forms of business organization are the sole proprietorship, the partnership, and the corporation. More businesses are organized as sole proprietorships than any other legal form. However, the largest businesses are almost always organized as corporations. Even so, each type of organization has its advantages and disadvantages.

Sole Proprietorships

A sole proprietorship is a business owned by one person who operates it for his or her own profit. About 73 percent of all businesses are sole proprietorships. The typical sole proprietorship is small, such as a bike shop, personal trainer, or plumber. The majority of sole proprietorships operate in the wholesale, retail, service, and construction industries. Typically, the owner (proprietor), along with a few employees, operates the proprietorship. The proprietor raises capital from personal resources or by borrowing, and he or she is responsible for all business decisions. As a result, this form of organization appeals to entrepreneurs who enjoy working independently. A major drawback to the sole proprietorship is unlimited liability, which means that liabilities of the business are the entrepreneur's responsibility, and creditors can make claims against the entrepreneur's personal assets if the business fails to pay its debts. The key strengths and weaknesses of sole proprietorships are summarized in Table 1.1.

Partnerships

A partnership consists of two or more owners doing business together for profit Partnerships account for about 7 percent of all businesses, and they are typically larger than sole proprietorships. Partnerships are common in the finance, insurance, and real estate industries. Public accounting and law partnerships often have large numbers of partners. Most partnerships are established by a written contract known as articles of partnership. In a general (or regular) partnership, all partners have unlimited liability, and each partner is legally liable for all of the debts of the partnership.

Table 1.1 summarizes the strengths and weaknesses of partnerships.

TABLE 1.1 Strengths and Weaknesses of the Common Legal Forms of Business Organization

	Sole proprietorship	Partnership	Corporation
Strengths	• Owner receives all profits (and sustains all losses) • Low organizational costs • Income included and taxed on proprietor's personal tax return • Independence • Secrecy • Ease of dissolution	• Can raise more funds than sole proprietorships • Borrowing power enhanced by more owners • More available brain power and managerial skill • Income included and taxed on partner's personal tax return	• Owners have *limited liability*, which guarantees that they cannot lose more than they invested • Can achieve large size via sale of ownership (stock) • Ownership (stock) is readily transferable • Long life of firm • Can hire professional managers • Has better access to financing
Weaknesses	• Owner has *unlimited liability*—total wealth can be taken to satisfy debts • Limited fund-raising power tends to inhibit growth • Proprietor must be jack-of-all-trades • Difficult to give employees long-run career opportunities • Lacks continuity when proprietor dies	• Owners have *unlimited liability* and may have to cover debts of other partners • Partnership is dissolved when a partner dies • Difficult to liquidate or transfer partnership	• Taxes generally higher because corporate income is taxed, and dividends paid to owners are also taxed at a maximum 15% rate • More expensive to organize than other business forms • Subject to greater government regulation • Lacks secrecy because regulations require firms to disclose financial results

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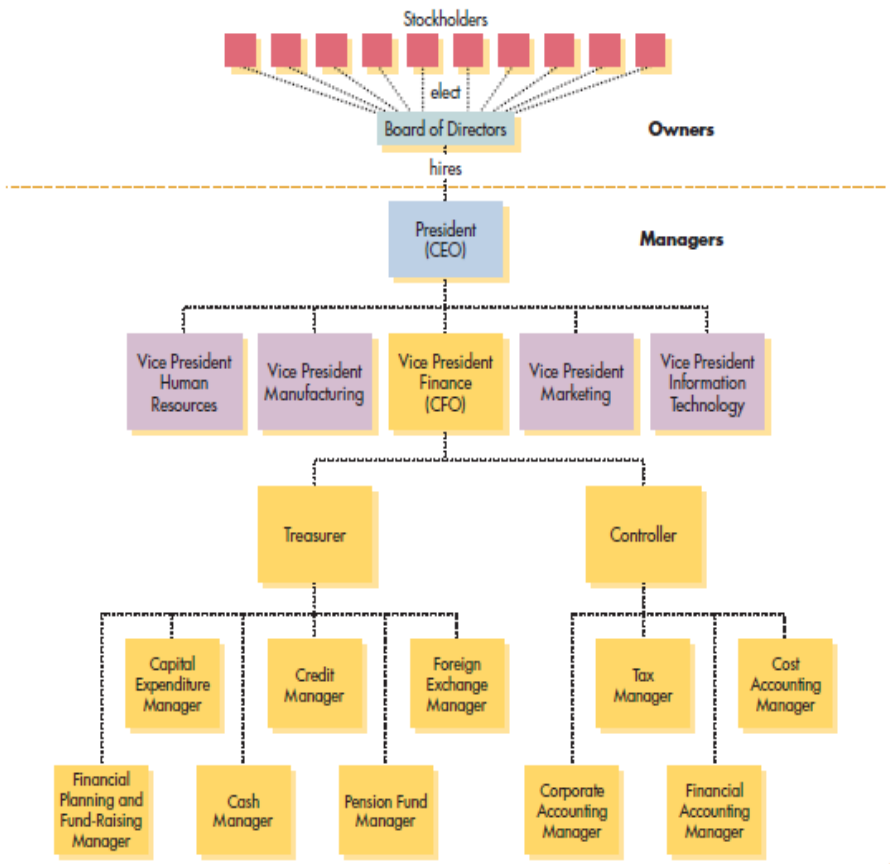
Corporations

A corporation is an entity created by law. A corporation has the legal powers of an individual in that it can sue and be sued, make and be party to contracts, and acquire property in its own name. Although only about 20 percent of all U.S. businesses are incorporated, the largest businesses nearly always are; corporations account for nearly 90 percent of total business revenues. Although corporations engage in all types of businesses, manufacturing firms account for the largest portion of corporate business receipts and net profits. Table 1.1 lists the key strengths and weaknesses of corporations. The owners of a corporation are its stockholders, whose ownership, or equity, takes the form of either common stock or preferred stock. Unlike the owners of sole proprietorships or partnerships, stockholders of a corporation enjoy limited liability, meaning that they are not personally liable for the firm's debts. Their losses are limited to the amount they invested in the firm when they purchased shares of stock. In Chapter 7 you will learn more about common and preferred stock, but for now it is enough to say that common stock is the purest and most basic form of corporate ownership. Stockholders expect to earn a return by receiving dividends—periodic distributions of cash—or by realizing gains through increases in share price. Because the money to pay dividends generally comes from the profits that a firm earns, stockholders are sometimes referred to as residual claimants, meaning that stockholders are paid last—after employees, suppliers, tax authorities, and lenders receive what they are owed. If the firm does not generate enough cash to pay everyone else, there is nothing available for stockholders.

As noted in the upper portion of Figure 1.1, control of the corporation functions a little like a democracy. The stockholders (owners) vote periodically to elect members of the board of directors and to decide other issues such as amending the corporate charter. The board of directors is typically responsible for approving strategic goals and plans, setting general policy, guiding corporate affairs, and approving major expenditures. Most importantly, the board decides when to hire or fire top managers and establishes compensation packages for the most senior executives. The board consists of "inside" directors, such as key corporate executives, and "outside" or "independent" directors, such as executives from other companies, major shareholders, and national or community leaders. Outside directors for major corporations receive compensation in the form of cash, stock, and stock options. This compensation often totals $100,000 per year or more.

FIGURE 1.1

Corporate Organization
The general organization of a corporation and the finance function (which is shown in yellow)



The president or chief executive officer (CEO) is responsible for managing day-to-day operations and carrying out the policies established by the board of directors. The CEO reports periodically to the firm's directors. It is important to note the division between owners and managers in a large corporation, as shown by the dashed horizontal line in Figure 1.1. This separation and some of the issues surrounding it will be addressed in the discussion of the agency issue later in this chapter.

Other Limited Liability Organizations

A number of other organizational forms provide owners with limited liability. The most popular are limited partnership (LP), S corporation (S corp), limited liability company (LLC), and limited liability partnership (LLP). Each represents a specialized form or blending of the characteristics of the organizational forms described previously. What they have in common is that their owners enjoy limited liability, and they typically have fewer than 100 owners.

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WHY STUDY FINANCE?

An understanding of the concepts, techniques, and practices presented throughout this text will fully acquaint you with the financial manager's activities and decisions. Because the consequences of most business decisions are measured in financial terms, the financial manager plays a key operational role. People in all areas of responsibility—accounting, information systems, management, marketing, operations, and so forth—need a basic awareness of finance so they will understand how to quantify the consequences of their actions.

OK, so you're not planning to major in finance! You still will need to understand how financial managers think to improve your chance of success in your chosen business career. Managers in the firm, regardless of their job descriptions, usually have to provide financial justification for the resources they need to do their job. Whether you are hiring new workers, negotiating an advertising budget, or upgrading the technology used in a manufacturing process, understanding the financial aspects of your actions will help you gain the resources you need to be successful. The "Why This Chapter Matters to You" section that appears on each chapter opening page should help you understand the importance of each chapter in both your professional and personal life.

As you study this text, you will learn about the career opportunities in managerial finance, which are briefly described in Table 1.2 on page 10. Although this text focuses on publicly held profit-seeking firms, the principles presented here are equally applicable to private and not-for-profit organizations. The decision making principles developed in this text can also be applied to personal financial decisions. We hope that this first exposure to the exciting field of finance will provide the foundation and initiative for further study and possibly even a future career.

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TABLE 1.2 Career Opportunities in Managerial Finance

Position	Description
Financial analyst	Prepares the firm's financial plans and budgets. Other duties include financial forecasting, performing financial comparisons, and working closely with accounting.
Capital expenditures manager	Evaluates and recommends proposed long-term investments. May be involved in the financial aspects of implementing approved investments.
Project finance manager	Arranges financing for approved long-term investments. Coordinates consultants, investment bankers, and legal counsel.
Cash manager	Maintains and controls the firm's daily cash balances. Frequently manages the firm's cash collection and disbursement activities and short-term investments and coordinates short-term borrowing and banking relationships.
Credit analyst/manager	Administers the firm's credit policy by evaluating credit applications, extending credit, and monitoring and collecting accounts receivable.
Pension fund manager	Oversees or manages the assets and liabilities of the employees' pension fund.
Foreign exchange manager	Manages specific foreign operations and the firm's exposure to fluctuations in exchange rates.

STARTING YOUR BUSINESS

Imagine that you were to start your own business. No matter what type you started, you would have to answer the following three questions in some form or the other.

(i) **What long term investments should you take on?** That is what line of business should you be in and what sorts of buildings, machinery and equipment will you need?

(ii) **Where will you get the long term financing to pay for your investment?** Will you retain the profit which you make? Will you bring in other owners or will you borrow the money?

(iii) How will you manage your everyday financing activities such as collecting from customers and paying suppliers?

These are not the only questions by any means but they are among the most important.

Business finance, broadly speaking is the study of ways to answer these questions.

Section 1

Objectives

At the end of this section , you should be able to

- Explain what financial management entails
- Describe the key tasks undertaken by the finance function within business organisations
- Explain financial management decisions

THE FINANCIAL MANAGER

A striking feature of large companies is that the owners (the shareholders) are usually not directly involved in making business decisions, particularly on a day to day basis. Instead, the company employs managers to represent the owner's interest and make decisions on their behalf. In a large company, the financial manager would be in charge of answering the three questions raised above.

The financial Management function is usually associated with a top officer of the firm, such as the financial director. Those activities controlled by the financial director include managing the firm's cash and credit, its financial planning and its capital expenditures.

The key tasks undertaken by the finance function within business organisations are as follows:

1. **Financial planning-** this involves developing financial projections and plans (such as cash flow statements and profit statements) which allow managers to assess the viability of proposed course of action.
2. **Investment project appraisal-** this involves evaluating investment projects and assessing the relative merits of competing proposals. It also involves the assessment of risk with particular investment projects.
3. **Financing decisions** – this require the identification of financing requirements and the evaluation of possible sources of finance. Not all financing requirements are derived from external sources; some funds may be internally generated through profits. The extent to which the business reinvests profits rather than distributing them in the form of dividends will therefore be an important consideration.

4. **Capital market operations**- the finance function must raise funds from the capital markets and must therefore understand how they work. This involves an appreciation of how finance can be raised through the markets, how securities are priced and how the markets are likely to react to proposed investment and financing plan.
5. **Financial control**- this refers to the ways in which the plans are achieved. Once plans are implemented it will be necessary for managers to ensure that things go according to plan.

FINANCIAL MANAGEMENT DECISIONS

The financial manager must be concerned with three basic types of questions:

(a) **Capital budgeting**- the first question concerns the firm's long-term investments. The process of planning and managing a firms long-term investments is called capital budgeting.

In capital budgeting, the financial manager tries to identify investment opportunities that are worth more to the firm than they cost to acquire. Loosely speaking this means that the value of the cash flow generated by an asset exceeds the cost of the asset.

Regardless of the specific nature of an opportunity under consideration, financial management must be concerned with not only how much cash they expect to receive, but also with when they expect to receive it and how likely they are to receive it. Evaluating the size, timing and risk of future cash flows is the essence of capital budgeting.

(b) **Capital structure**- the second question for the financial manager concerns ways in which the firm obtains and manages the long term investments. A firm's capital structure refers to the specific mixture of long term debt and equity the firm uses to finance its operations. The financial manager has two concerns in this area. First, how much should the firm borrow; that is, what mixture of debt and equity is best? The mixture chosen will affect both the risk and value of the firm. Second, what are the least expensive sources of funds for the firm? If we picture the firm as a pie, then the firm's capital structure determines how the pie is sliced. In other words, what percentage of the firms' cash flow goes to lenders and what percentage goes to shareholders?

(c) **Working capital management**: the third question concerns working capital management. The phrase working capital refers to a firms short term assets, such as

inventory, and its short term liabilities such as money owed to suppliers, managing the firms working capital is a day-to-day activity that ensures the firm has sufficient resources to continue its operations and avoid costly interruptions. This involves a number of activities related to the firms receipt and disbursement of cash.

Some questions about working capital that must be answered are:

(1) How much cash inventory should we keep on hand?
(2) Should we sell on credit? If so what terms will we offer and to whom will we extend them?
(3) How will we obtain any needed short term financing? Will we purchase on credit or will we borrow short term and pay cash?

Review Questions

1. Explain financial management
2. Describe the key task undertaken by the finance function within business organisations

Section 2

Objectives

At the end of the section , you should be able to

- Explain some possible objectives of a business
- Differentiate between profit maximisation and wealth maximisation
- Explain why finance experts consider the maximisation of the returns to shareholders in the long term as a superior goal.
- Explain the term satisficing

THE CORPORATE OBJECTIVES

The key idea underpinning modern financial management is that, the primary objective of a business is shareholder wealth maximization, that is, to maximize the wealth of its shareholders (owners). In a market economy the shareholders will provide funds to a business in the expectation they will receive the maximum possible increase in wealth for the level of risk which must be faced. When evaluating competing investment opportunities, therefore the shareholders will weigh the returns from each investment against the potential risk involved.

The term wealth in this context refers to the market value of the ordinary shares. The market value of the shares will in turn reflect the future returns the shareholder will receive over time from the shares and the level of risk involved.

Since shareholders receive their wealth through dividends and capital gains (increase in the value of their shares), shareholder wealth will be maximised by maximising the value of dividend and capital gains that shareholders receive over time.

Owing to the rather vague and complicated nature of the concept of shareholder wealth maximisation, other objectives are commonly suggested as possible substitutes or surrogates. Alternative objectives to shareholder wealth maximising also arises because of the existence of a number of other groups with an interest in the company (stakeholders). All of these groups, such as employees, customers, creditors and the local community will have different views on what the company should aim for. It is important to stress that while companies must consider the views of stakeholders other than shareholders, and while companies may

adopt one or several substitute objectives over shorter periods, from corporate finance perspective such objectives should be pursued only in support of the overriding long-term objective of maximising shareholder wealth.

Some possible objectives

A firm can choose from an infinitely long list of possible objectives. Some of these will appear noble and easily justified; others remain hidden, implicit, embarrassing, and even subconscious. The following represent some of the frequently encountered.

- **Achieving a target market share** – in some industrial sectors to achieve a high share of the market gives high rewards. These may be in the form of improved profitability, survival chances or status. Quite often the winning of a particular market share is set as an objective because it acts as a proxy for other, more profound objectives, such as generating the maximum returns to shareholders.
- **Keeping employee agitation to a minimum** – here, return to the organisation's owners is kept to a minimum necessary level. All surplus resources are directed to mollifying employees. Managers would be very reluctant to admit publicly that they place a high priority on reducing workplace tension, encouraging peace by appeasement and thereby, it is hoped, reducing their own stress levels, but actions tend to speak louder than words.
- **Survival** – there are circumstances where the overriding objective becomes the survival of the firm. Severe economic or market shock may force managers to focus purely on short-term issues to ensure the continuance of the business. They end up paying little attention to long-term growth and return to owners. However, this focus is clearly inadequate in the long run – there must be other goals. If survival were the only objective, then putting all the firm's cash reserves into a bank savings account might be the best option. When managers say that their objective is survival what they generally mean is the avoidance of large risks which endanger the firm's future. This may lead to a greater aversion of risk, and a rejection of activities that shareholders might wish the firm to undertake.
- **Creating an ever-expanding empire** – this is an objective which is rarely openly discussed, but it seems reasonable to propose that some managers drive a firm forward, via organic growth or mergers, because of a desire to run an ever-larger enterprise. Often these motives become clearer with hindsight; when, for instance, a firm meets a calamitous end the post mortem often reveals that profit and efficiency were given second

place to growth. The volume of sales , number of employees or overall stock market value of the firm have a much closer correlation with senior executive salaries, perks and status than do returns to shareholder funds . This may motivate some individuals to promote growth.

- **Maximisation of profit** – this is much more acceptable objective, although not everyone would agree that maximisation of profit should be the firm's purpose.
- **Maximisation of long-term shareholder wealth** – while many commentators concentrate on profit maximisation, finance experts are aware of a number of drawbacks of profit. The maximisation of the returns to shareholders in the long term is considered to be a superior goal.
- **Social Responsibility** – some companies adopt an altruistic social purpose or corporate objective. They may be concerned with improving working conditions for employees, providing a healthy product for consumers or avoiding anti-social actions such as environmental pollution or undesirable promotional practices. While it is important not to upset stakeholders such as employees and the local community, social responsibility should play a supporting role within the framework of corporate objectives rather than acting as a company's primary goal.

WEALTH MAXIMISATION OR PROFIT MAXIMISATION

Wealth maximisation is not the only financial objective which a business can pursue. Profit maximization is often suggested as an alternative for a business. Profit maximisation is different from wealth maximisation in a number of respects. There are different measures of profit which could be maximised, including the following:

(a) Operating profit (i.e. net profit before interest and tax)
(b) Net profit before tax
(c) Net profit after tax
(d) Net profit available to ordinary shareholders
(e) Net profit per ordinary share etc

Differences in the choice of profit measure can lead to differences in decisions reached concerning a particular opportunity.

Profit maximisation is usually seen as a short term objective whereas wealth maximisation is a long term objective. There can be conflict between long term and short term performance. It will be quite possible for example to maximise short term profits at the expense of long term profits.

The manager of a business may reduce operating expenses by:

(a) Cutting research and development expenditure
(b) Cutting staff training and development
(c) Bringing cheaper quality material and
(d) Cutting quality control mechanisms

These policies may all have a beneficial effect on short term profits but may undermine the long term competitiveness and performance of a business. Whereas wealth maximisation takes risk into account, profit maximisation does not. This means that logically, a profit maximisation policy should lead managers to invest in high risk projects. Such a policy however may not coincide with the requirement of the shareholders. When considering an investment, shareholders are concerned with both risk and the long-run returns that they expect to receive. Only a wealth maximisation objective takes both of these into account.

Fundamental Problems with Profit Maximisation

The classical economic view of the firm, as put forward by Hayek (1960) and Friedman (1970), is that it should be operated in a manner that maximises its economic profits. The concept of economic profit is far removed from the accounting profit found in a company's income statement. While economic profit broadly equates to cash, accounting profit does not. There are many examples of companies going into liquidation shortly after declaring high profits. This leads us to the first of the three fundamental problems with profit maximisation as an overall corporate goal.

i) The first problem is that there are 'quantitative difficulties' associated with profit. Maximisation of profit as a financial objective requires that profit be defined and measured accurately and that all the factors contributing to it are known and can be taken into account. It is very doubtful that this requirement can be met on a consistent basis.

ii) The second problem concerns the 'timescale' over which profit should be maximised. The key question to ask here is 'should profit be maximised in the

long term or in the short term'? Given that profit considers one year at a time, the focus is likely to be on short-term profit maximisation at the expense of long-term investment, putting the long-term survival of the company into doubt.

iii) The third problem is that profit does not take account of, or make an allowance for, risk. It would be inappropriate to concentrate our efforts on maximising accounting profit when this objective does not consider one of the key determinants of shareholder wealth.

Shareholders' dividends are paid with cash, not profit, and the timing and associated risk of dividend payments are important factors in the determination of shareholder wealth. When we consider this fact with the problem just discussed, we can only conclude that maximisation of profit is not a suitable substitute objective for maximisation of shareholder wealth. That is not to say that a company does not need to pay attention to its profits figures, since falling profits or profit earnings are taken by the financial markets as a sign of financial weakness. In addition, profit targets can serve as a useful purpose in helping a company to achieve short-term or operational objectives within its overall or strategic plan.

HOW CAN SHAREHOLDER WEALTH BE MAXIMISED?

We have already mentioned that shareholder wealth maximisation is a rather vague and complicated concept. We have also stated that shareholders' wealth is increased through the cash they receive in dividend payments and the capital gains arising from increasing share prices. It follows that shareholder wealth can be maximised by maximising the purchasing power that shareholders derive through dividend payments and capital gains over time. From this view of shareholder wealth maximisation, we can identify three variables that directly affect shareholders' wealth:

i. The magnitude of cash flows accumulating to the company
ii. The timing of cash flows accumulating to the company
iii. The risk associated with the cash flows accumulating to the company.

Having established the factors that affect shareholder wealth we can now consider what to take as an indicator of shareholder wealth. The indicator usually taken is a company's ordinary share price, since this will reflect expectations about future dividend payments as

well as investor views about the long-term prospects of the company and its expected cash flows. The surrogate objective, therefore is to maximise the current market price of the company's ordinary shares and hence to maximise the total market value of the company. The link between the cash flows arising from a company's projects all the way through the wealth of its shareholders is illustrated in figure 1.1.

At stage one, a company takes on all projects with a positive net present value (NPV). By using NPV to appraise the desirability of potential projects, the company is taking into account the three variables that affect shareholder wealth i.e. the magnitude of expected cash flows, their timing (through discounting at the company's cost of capital) and their associated risk (through the selected discount rate). At stage two, given that NPV is additive, the NPV of the company as a whole should equal the sum of the NPV's of the projects the company has undertaken. At stage three, the NPV of the company as a whole is accurately reflected by the market value of the company through its share price. The link between stages one and two (i.e. the market value of the company) will depend heavily upon the efficiency of the stock market and hence on the speed and accuracy with which share prices change to reflect new information about companies. Finally, at stage four, the share price is taken to be a surrogate for shareholder wealth and so shareholder wealth will be maximised when the market capitalisation of the company is maximised.

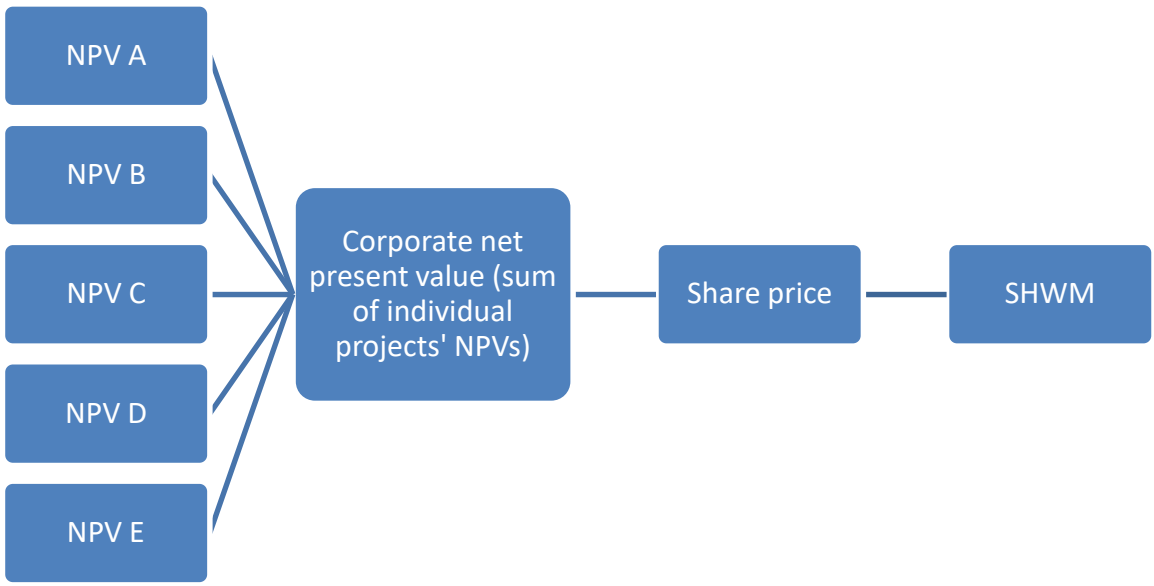


Figure 1.1

Now that we have identified the factors that affect shareholder wealth and established maximisation of a company's share price as a surrogate objective for maximisation of shareholder wealth, we need to consider how a financial manager can achieve this objective. The factors identified as affecting shareholder wealth are largely under the control of any decisions they make will also be affected by the conditions prevailing in the financial market. In the terms of our earlier discussion, a company's value will be maximised if the financial manager makes 'good investment, financing and dividend decisions. Examples of the 'good financial decisions in the sense of decisions that promote maximisation of a company's share price include the following:

i. Managing a company's working capital efficiently by striking a balance between the need to maintain liquidity and the opportunity cost of holding liquid assets.
ii. Raising finance using the most appropriate mixture of debt and equity in order to minimise a company's cost of capital.
iii. Using NPV to assess all potential projects and then accepting all projects with a positive NPV.
iv. Adopting the most appropriate dividend policy, which reflects the amount of dividends a company can afford to pay, given its level of profits and the amount of retained earnings it requires for investment
v. Taking account of the risk associated with financial decisions and where possible guarding against it, e.g. hedging interest and exchange rate risk.

To maximise or to satisfy

Even if we reject the use of profit and accept shareholder wealth as an appropriate financial measure we may still question whether the maximisation of shareholder wealth is appropriate. To begin with, this objective implies that the needs of the shareholders are paramount. The business can however be viewed as a coalition of various interest groups which all have a stake in the business.

The following groups may be seen as stakeholders:

(a) Shareholders
(b) Employees
(c) Managers
(d) Suppliers

(e) Customers

(f) The community

If we accept this view of the business, the shareholders simply become one of a number of the stakeholder groups whose needs have to be satisfied. It can be argued that, instead of seeking to maximise the returns to shareholders, the managers should try to provide each stakeholder group with a **satisfactory return.** The term satisficing has been used to describe this particular business objective. Although this objective may sound appealing, there are practical problems associated with its use.

Problems with satisficing

(a) In a market economy there are strong competitive forces at work which ensures that failure to maximise shareholders wealth will not be tolerated for long. Competition for shareholder funds and managers jobs should ensure that the interests of shareholders prevail. If managers do not pursue shareholders interest, they may decide to replace management with new team which is more responsive to shareholder needs or they may even decide to sell their shares in the business.

(b) Apart from shareholders, there are other stakeholders within a business. Satisfying the needs of other stakeholder groups will often be consistent with the need to maximise shareholders wealth. A dissatisfied workforce, for example, may result in low productivity, strikes and so forth, which will in turn have an adverse effect on the shareholders' investment in the business. This kind of interdependence has led to the argument that the needs of other stakeholder groups must be viewed as constraints within which shareholders wealth should be maximised.

Review Questions

1. Explain some possible objectives of a business
2. Explain why finance experts consider the maximisation of the returns to shareholders in the long term as a superior goal.

Section 3

Objectives

At the end of this section , you should be able to

- Explain corporate governance
- Discuss agency relationship and the problems associated with it
- Explain a number of rules that have been designed to safeguard the interest of shareholders

AGENCY THEORY; why does Agency exist?

Agency is the theoretical relationship that exist between the owner of a company and the managers as agents they employ to run the company on their behalf. While managers are expected to make decisions that are consistent with the objective of maximising shareholder wealth, whether this happens in practise is another matter. The agency problem is said to occur when managers make decisions that are not consistent with the objective of the shareholder wealth maximisation. Three important features that contribute to the existence of the agency problem within public limited companies are as follows:

i. Divergence of ownership and control, whereby those who own the company (shareholders) do not manage it but appoint agents (managers) to run the company on their behalf.
ii. The goals of managers differ from those of shareholders (principals). Human nature being what it is, managers are likely to look to maximising their own wealth rather than the wealth of shareholder.
iii. Asymmetry information exists between agent and principal. Managers as a consequence of running the company on a day- to- day basis, have access to management accounting data and financial reports, whereas shareholders only receive annual reports, which may be subject to manipulation by management.

When these three factors are considered together, it should be clear that managers are in a position to maximise their own wealth without necessarily being detected by the owners of the company. Asymmetry of information makes it difficult for shareholders

to monitor managerial decisions, allowing managers to follow their own welfare maximising decisions. Examples of possible management goals include:

a) Growth or maximising the size of the company
b) Increasing managerial power
c) Creating job security
d) Increasing managerial pay and rewards
e) Pursuing their own social objectives or pet projects.

CORPORATE GOVERNANCE AND THE AGENCY PROBLEM

Introduction

Until now we have only solutions to agency problem at an individual company level. In recent years, however, a more over-arching solution to the corporate governance problem has come through self-regulation. This approach has sought to influence the structure and nature of mechanisms by which owners govern managers in order to promote fairness, accountability and transparency.

The issue of corporate governance has generated much debate in recent years. Corporate governance is used to describe the ways in which businesses are directed and controlled. The issue of corporate governance is important because in businesses of any size, the owners (i.e. the shareholders) are usually divorced from the day-to-day control of the business. Professional managers are employed by the shareholders to manage the business on their behalf. These managers may therefore be viewed as agents of the shareholders (who are principals).

Given this agent principal relationship, it may seem safe to assume that managers will be guided by the requirements of the shareholders when making decisions. In other words the wealth objective of the shareholders will become the manager's objectives. However in practice this does not always occur. The manager may be more concerned with pursuing their own interest such as increasing their pay and perks (e.g. expensive motor cars and so on) and improving their job security and status. As result a conflict may occur between the interest of the shareholder and the interest of the managers. It can be argued that in a competitive market economy, this agency problem, as it is termed should not persist over time. However, if competitive forces are weak or if information concerning management activities is not available to shareholders, the risk of agency problems will be increased.

Dealing with the agency problem between shareholders and managers: Actions that might be taken to ensure that managers act in accordance with the interest of shareholders

Jensen and Meckling (1976) suggested that there are two ways of seeking to optimise managerial behaviour in order to encourage goal congruence between shareholders and managers.

The first way is for shareholders to monitor the actions of management. There are a number of possible monitoring devices that can be used, although they all incur costs in terms of both time and money. These monitoring devices include;

(a) The use of independent audited financial statements and additional reporting requirements and

(b) The shadowing of senior managers and the use of external analysts.

The cost of monitoring must be weighed against the benefits accruing from a decrease in suboptimal managerial behaviour (i.e. managerial behaviour which does not aim to maximise shareholder wealth).

A major difficulty associated with monitoring as a method of solving the agency problem is the existence of 'free riders'. Smaller investors allow larger shareholders who are more eager to monitor managerial behaviour owing to their longer stake in the company, to incur the bulk of monitoring costs, while sharing the benefits of corrected management behaviour. Hence the smaller investors obtain a 'free ride'.

An alternative to monitoring is for shareholders to incorporate clauses into managerial contracts which encourage goal congruence. Such clauses formalise constraints, incentives and punishments. An optimal contract will be one which minimises the total costs associated with agency. These agency costs include:

(i) Financial contracting cost, such as transaction and legal cost

(ii) The opportunity cost of any contractual constraints

(iii) The cost of managers' incentives and bonus fees

(iv) Monitoring costs, such as the cost of reports and audit and

(v) The loss of wealth owing to sub-optimal behaviour by the agent.

Owing to the difficulties associated with monitoring managerial behaviour, some companies offer incentives as a mere practical way of encouraging goal congruence. The two most common incentives offered to managers are performance related pay (PRP) and 'executive share option schemes'. These methods are not without their drawbacks.

Performance-related Pay (PRP)

The major problem here is that of finding an accurate measure of managerial performance. For example, managerial remuneration can be linked to performance indicators such as profit, earnings per share or return on capital employed. However, the accounting information on which these performance measures are based is opened to manipulation by the same managers who stand to benefit from performance-related pay. Besides profit, earnings per share and return on capital employed may also not be good indicators of wealth creation since they are not based on cash and hence do not have a direct link to shareholder wealth maximisation.

Executive share option scheme

Given the problems associated with performance-related pay, executive share option schemes represent an alternative way to encourage goal congruence between senior managers and shareholders. Share options allow managers to buy a specified number of their company's shares at a fixed price over a specified period. The options have value only when the market price of the company's shares exceeds the price at which they can be bought using the option. The aim of executive share option schemes is to encourage managers to maximize the company's share price, and hence to maximize shareholder wealth, by making managers potential shareholders through their ownership of share options. Share option schemes are not without their problems.

First, while good financial management does increase share prices, there are a number of external factors that affect prices. If the county is experiencing an economic boom, share prices will increase (a bull market). Managers will then benefit through increases in the value of their share options, but this is not necessarily down to their good financial management. Equally, if share prices in general are falling, share options may not reward managers who have been doing a good job in difficult conditions. Second, problems with share option schemes arise because of their terms. Share options are not seen as an immediate cost to the

company and so the terms of the options (i.e. the number of shares that can be bought and the price at which they can be bought) may sometimes be set at too generous a level.

Shareholders in addition to using monitoring and managerial incentives have other ways of keeping managers on their toes. For example, they have the right to remove directors by voting them out of office at a company's annual general meeting. Whether this represents a viable threat to managers depends heavily on the ownership structure of the company, i.e. there are a few large influential shareholders holding over half of the company's ordinary shares. Alternatively, shareholders can 'vote with feet' and sell their shares on the capital market. This can have the effect of depressing the company's share price making it a possible takeover threat.

Corporate governance and economic performance

If managers fail to take account of shareholders objective, it is clearly a problem for the shareholders. However, it may also be a problem for the society as a whole. To avoid these problems, most competitive market economies have a framework of rules to help monitor and control manager behaviour. These rules are usually based around three guiding principles;

(a) Disclosure- this lies at the heart of good corporate governance. Adequate and timely information about corporate performance enables investors to make informed buy-and-sell decisions and thereby helps the market reflect the value of a corporation under present management.
(b) Accountability- this involves defining the roles and duties of the directors and establishing an adequate monitoring process. In the United Kingdom for example, company law requires that directors of businesses act in the best interest of shareholders.
(c) Fairness- Managers should not be able to benefit from access to inside information which is not available to shareholders. As a result, both the law and the stock exchange place restrictions on the ability of directors to deal in the shares of the business.

OTHER RULES

The importance of good standards of corporate governance has been highlighted in the UK by the collapse of a number of large companies including Polly Peck in 1990, Maxwell Communications Corporation in 1991 and Enron and WorldCom in the US in 2002. More

recently, the global banking crisis that began in 2008 and its effects on the UK financial services sector has raised fresh concerns about the effectiveness of UK corporate governance and the manner in which remuneration packages for senior executives has been determined.

The issue of corporate governance was first addressed in the UK in 1992 by a committee chaired by Sir Adrian Cadbury. The resulting Cadbury report (Cadbury Committee, 1992) recommended a voluntary code of best practice which the London stock exchange subsequently required member companies to comply with. Listed companies had to state in their accounts whether or not they complied with the Cadbury code of best practice and if not to explain the reasons behind their non-compliance. The code covers such matters as the following:

The Hampel Committee (1998), established 'super code' made up of a combination of its own recommendations and findings of the previous two committees (combined code), again overseen by the London Stock Exchange, who continued to include compliance with the provisions of the code in its listing requirement.

The combined code was further developed in 2000 as a direct consequence of the findings of the Turnbull report(published in September 1999) which focused on systems of internal control and wide-ranging types of significant risks that companies need to control. Additionally, after the collapse of Enron Inc., and Worldcom in 2002, the British government decided to investigate both the effectiveness of non-executive directors (NEDs) and the independence of audit committees in the UK companies. The resulting Higgs report in 2003, dealt with the first of these two issues and made a number of recommendations designed to enhance the independence and effectiveness of NEDs. It also commissioned the Tyson report to investigate how companies could recruit NEDs with varied backgrounds and skills to enhance board effectiveness. At the same time, the Smith report examined the role of audit committees and while stopping short of recommending that auditors should be rotated periodically (e.g. every five years), gave authoritative guidance on how audit committees should operate and be structured. The recommendations of both Higgs and Smith were incorporated into an extended version of the combined code in July 2003. Since then the Financial Reporting Council of the UK has twice reviewed and amended the combined code (in 2005 and 2007). The current version of the combined code came into force in June 2008 following its review the previous year. Its lays out a number of recommendations in terms of

a company's board of directors, the remuneration they receive, their accountability, the audit committee and the company's relationship with shareholders, including institutional investors. A summary of the combined code's key provisions is provided here.

The board:

a) The posts of chief executive officer and chairman , the two most powerful positions within a company should not held by the same person;
b) A chief executive officer should not go on to be the chairman of the same company;
c) Company boards should include a balance of executive and non-executive directors of sufficient calibre who are independent of management, appointed for specified terms after being selected through a formal process.

Remuneration:

a) Directors' notice or contract periods should be no longer than one year;
b) Performance-related pay should form a considerable proportion of executive directors' remuneration packages and should not reward poor performance.
c) The remunerations of the chairman and all executive directors should be set by a remunerations committee made up of at least three independent non-executive directors.

Accountability and Audit

a) The board should conduct an annual review of the company's internal controls including their risk management systems.
b) The board should establish an audit committee of at least three independent non-executive directors to review and monitor the company's internal financial controls and audit function, external auditor independence and the integrity of the financial statements.
c) There should be full disclosure of directors' remunerations including any pension contributions and share options.

Relations with Shareholders

The board should communicate effectively with shareholders at the AGM and encourage their participation.

Corporate Governance in Ghana

In Ghana Corporate governance has been gaining root in response to initiatives by some stakeholders like the Ghana Institute of Directors and the Commonwealth Association of Corporate Governance to address corporate governance issues in Ghana. Other regulatory agencies like Bank of Ghana, Insurance Commission, and Securities and Exchange Commission, etc. have also designed other initiatives to address corporate governance issues in the country. In the year 2001, a study conducted and launched by the Institute of Directors (Ghana) indicated that there is an increasing acceptance of good corporate governance practices by firms in Ghana.

Even though with all these initiatives, it must be pointed out that formal corporate structure and institutions are relatively not widespread and also there is no act or enactment specifically on corporate governance in Ghana. There are a number of laws that provide guidelines on governance structures for firms in Ghana. Laws on governance include;

- The companies code 1963 (Act 179) which provides governance for all companies incorporated in Ghana.
- The Banking Act 2004 (Act 673) as amended by Banking (Amendment) Act 2007 (Act 738) which provides governance for the banking industry in Ghana.
- The securities industry law , 1993 (PNDCL 333) as amended by the securities industry (Amendment) Act 2000, (Act 590) which also provides among other things for governance of all stock exchange investment advisor, security dealers and collective investment scheme licensed by the securities and exchange commission (SEC)
- The Ghana Stock Exchange's Listing Regulations, 1990 (L.I. 1509), rules on Take-Over and Mergers regulate governance of listed companies.

  Under the above legal framework for corporate governance, certain provisions ensure tight internal control in the hope that good corporate governance will operate. These include:
  - Role of board of directors
  - Payments
  - Financial accounting

The companies Code deliberately attempt to make corporate practices more efficient and effective in the country. The code stipulates a minimum of two directors for a company with no maximum number as the ceiling, whilst listing regulations for the Ghana Stock Exchange (GSE) are silent on board size. Concerning the composition of board, there is no requirement under the Companies code for the appointment of independent directors neither is there a provision for the balance of executive and non-executive directors. However, the Companies' code allows the interest of different stakeholders to be represented on a board. This is however a requirement under the security and exchange commission's code of best practices on corporate governance (SEC Code) for the Ghana Stock Exchange (GSE).

Review Questions

1. Explain corporate governance
2. Discuss agency relationship and the problems associated with it

Section 4

Objectives

At the end of this section , you should be able to

- Explain financial markets
- Describe financial intermediation
- Show the differences between direct and indirect transfer of funding from suppliers to users

The Role of Financial Markets in Finance

Introduction

Funds are raised in financial markets. In this section, we shall explore what financial markets are and what financial intermediation entails.

Financial Markets

Consider the situation where the need for financing has been established – for example, a project that is likely to make the firm better off has been detected. One now needs to raise funds with which to undertake the project. Financial markets are the place to turn to raise funds.

Financial markets are a system or arrangement for bringing together those in need of funds and those with surplus funds such that funds are passed on to those in need from those who have surplus. Suppliers of funds receive financial assets financial securities, financial instruments, and financial vehicles in return.

Note that this definition is similar to the economic definition for the market for goods and services as a system for bringing together buyers and sellers to exchange goods and services.

In financial markets, suppliers of funds purchase financial securities that are being sold by those in need of funds.

When one goes to financial markets to raise funds, one must indicate the form of financing one requires. That is, whether funds are required on short-term basis, or long-term basis. Whether one wants to borrow, or one is looking for co-owners.

To fix ideas, consider a balance sheet. Everything on the right-hand side of the balance sheet is a source of funds. The source supplies the funds that are invested in those items on the left-hand side of the balance sheet, the assets.

In considering financial markets, one may focus on the maturity of financial assets only. In finance, we refer to the segment of financial markets in which securities with short maturities, usually a year or less are bought and sold as the money market. The segment that is concerned with securities with long maturities, or no maturities is referred to as capital market. Thus, when stock exchanges are referred to as capital markets, the understanding is that they are concerned with securities with long or no maturities.

Money versus Capital Markets

Financial markets can be classified as either money market or capital markets. Short-term debt securities of many varieties are bought and sold in the money markets. These short term debt securities are often called money market instruments. For example, a banker's acceptance represents short term borrowing by large corporations and money market instrument. Treasury bills are promissory notes of the government of Ghana. Capital markets are markets for long-term debt and shares of stock, so the Ghana Stock Exchange for example is a capital market.

Primary versus Secondary Markets

Financial markets function as both primary and secondary markets for debt and equity securities. The term primary market refers to the original sale of securities by governments and corporations. The secondary markets are where these securities are bought and sold after the original sale. Equities are of course issued solely by corporations. Debt securities are issued by both governments and corporations. The following discussion focuses on corporate securities only.

Primary Markets

In a primary market transaction, the corporation is the seller and raises money through the transaction. In recent times many companies in Ghana issued public shares for the first time in initial public offerings (e. g. GCB, GOIL and SIC). Corporations engage in two types of primary market transactions: public offering and private placement. A public offering as the name suggests involves selling securities to the general public, while a private placement ias a negotiated sale involving a specific buyer.

Secondary Markets

A secondary market transaction involves one owner or creditor selling to another. It is therefore the secondary markets that provide the means for transferring ownership of corporate securities. There are two kinds of secondary markets: auction markets and dealer markets.

Dealer markets and long term debts are called over-the-counter (OTC) markets. Today, like the money market, a significant fraction of the market for stocks and all of the market for long term debt has no central location; the many dealers are connected electronically.

An auction market has a physical location (like Cedi House Accra for GSE, Bay Street or Wall Street). In a dealer market, most buying and selling is done by the dealer. The primary purpose of an auction market on the other hand, is to match those who wish to sell with those who wish to buy.

LISTING

Stocks that trade on organised stock exchange are said to be listed on that exchange. Companies seek exchange listing in order to enhance the liquidity of their shares, making them more attractive to investors by facilitating raising equity. To be listed, firms must meet certain minimum criteria concerning for example, the number of shares and shareholders and the market value. The criteria for listing differ for different exchanges. The GSE has its own criteria to be met before companies can be allowed to get listed. It also has continuing requirements that listed companies must meet in order to remain listed. Some of the continuing requirements border on issues such as disclosure of information and company relations with shareholders.

Financial Intermediation

The transfer of funds between suppliers and users of funds may be described as direct or indirect it is direct when the user of funds interacts directly with the supplier without the involvement of a third party.

At other times, a third party may be involved, playing the role of a facilitator. That is, making it possible, or more convenient for the transfer of funds to take place between suppliers and users. This mode of transfer is referred to as indirect.

Third parties that facilitate indirect transfers are referred to as financial intermediaries, and the process is referred to as financial intermediation.

In general, smaller amounts are involved in direct transfers. Most transfer of funds takes place with the help of financial intermediaries. For example, a bank which takes deposits from suppliers of funds and makes loans to users of funds is acting as an intermediary.

To raise funds, the entity in need sells securities and the supplier of funds buys these securities. Funds so supplied go to the entity raising the money. This is referred to as the primary market or new issue for these securities.

Subsequent to the purchase of the securities, the purchaser may decide that they want their money back without waiting for the securities to mature. The holder of the securities may then sell the securities to any other party that wants to buy. The sale just described involves sale of securities that had been previously sold in the primary market. This sale and all other subsequent sales are described as taking place in the secondary market which is the market for trading in previously issued securities.

Foreign Exchange Market

The foreign exchange market is undoubtedly the world's largest financial market. It is the market where one country's currency is traded for another's. Most of the trading takes place in a few currencies: the US dollar ($), the Euro (€), British pound sterling (£), Japanese yen (¥) and Swiss Franc (SF).

The foreign exchange market is an over- the- counter market. There is no single location where traders get together. Instead, traders are located in major commercial and investment banks around the world. They communicate using computer terminals, telephones and other telecommunication devices. One element in the communication network for foreign

transactions is the society for worldwide interbank financial telecommunications (SWIFT). It is a Belgian not for profit co-operative. A bank in Accra can send messages to a bank in London via SWIFT's regional processing centres. The connections are through data transmission lines. In practice, many exchange rates exist, not only the buy and sell rates between different currencies, but also for the same currency over different time horizons. The different rates can be illustrated by considering the exchange rate between the Sterling and Ghana cedi.

	Sell rate	Buy rate
Ghs Spot rate	5.0124	5.1873
One-Month Ghs Forward rate	5.1250	5.1589
Three-Month Ghs Forward rate	5.2443	5.2887

The spot rate refers to the rate of exchange if buying or selling the currency immediately. The higher of the two spots rates (5.1873) is the buying rate (the number of Ghs you would have to give up to receive 1 pound), whereas the lower spot rate (5.0124) is the sell rate (the number of Ghs you will receive for giving up 1 pound). The difference between the two spot rates is called the spread.

The rates below the spot rates are called Forward rates and these allow the firing of buy and sell rates for settlement and delivery at a specific date in the future.

Trends in Financial Markets and Management

Like all markets, financial markets are experiencing rapid globalization. At the same time the interest rates, foreign exchange rates and other macroeconomic variables have become more volatile. The toolkit of available financial management techniques has expanded rapidly in response to a need to control increased risk from volatility and to track complexities arising from dealings in many countries. Improved computer technology makes new financial engineering applications practical.

When financial managers or investment dealers design new securities for financial processes, their efforts are referred to as financial engineering. Successful financial engineering reduces and controls risks and minimises taxes. Financial engineering creates a variety of debt securities and reinforces the trend towards securitization of credit introduced earlier.

In addition to financial engineering, advances in computer technology also creates opportunities to combine different types of financial institutions to take advantage of economies of scale and scope. Large institutions can then operate for instances in all regions in Ghana and internationally, enjoying more lax regulations in some jurisdictions than in others.

Deregulation in the Ghanaian financial services sector for instances is opening the possibility for further changes. Currently we have about 27 banks in Ghana. We have also seen a number of acquisitions such as Ecobank/TTB, Access/Intercontinental and Fortiz/Merchant bank.

These trends have made financial management a much more complex and technical activity. For this reason, many business students find introductory finance one of their most challenging subjects. The trends we reviewed have also increased the stakes. In the face of increased competition globally, the pay off for good financial management is great. The finance function is also becoming important in corporate strategic planning. The good news is that career opportunities (and compensation) in financial positions are highly competitive.

Summary

In this section we focused on financial markets and financial intermediation. Financial markets may be classified as money markets or capital markets. In financial markets, we may speak of the primary market for a security issue, or the secondary market for that issue. Financial intermediaries are the agents who bring together suppliers and users of funds in financial markets.

Review Questions

1. Explain financial markets
2. Show the differences between direct and indirect transfer of funding from suppliers to users

UNIT 2

FINANCING A BUSINESS

INTRODUCTION

Under this unit, we examine the various aspects of financing a business. We begin by considering the main sources of finance available to a business and the factors to be considered in choosing an appropriate source of finance.

When identifying the various sources of finance available to a business, it is useful to distinguish between external and internal sources of finance.

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

Section 1

Objectives

By the end of the section, you should be able to

- Explain what external sources of finance is
- Identify the short-term external sources of finance
- Identify the long term external sources of finance

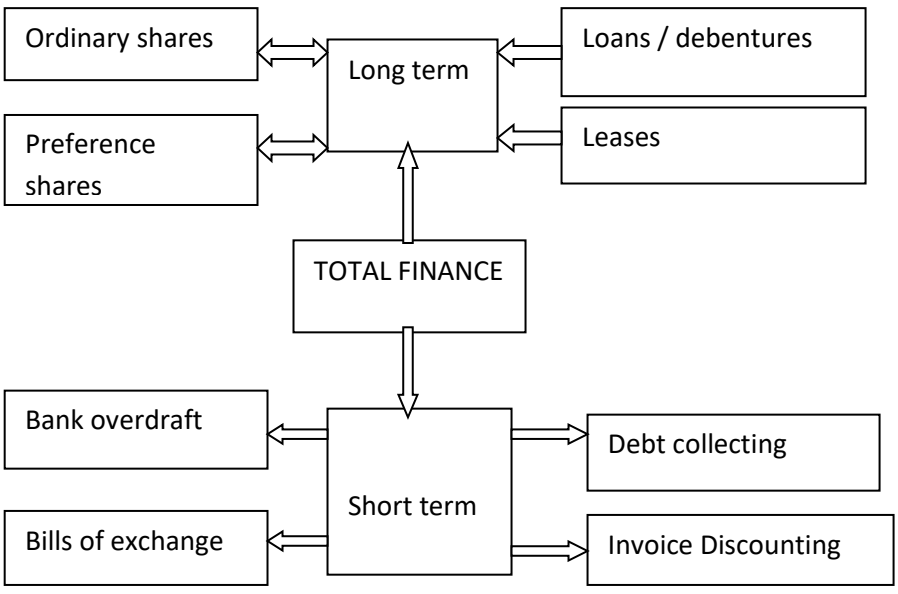
SOURCES OF EXTERNAL FINANCE

By **external sources** we mean sources that require the agreement of someone beyond the directors and managers of the business. Thus, **finance from an issue of new shares** is an external source because it requires the agreement of potential shareholders.

Internal sources of finance, on the other hand, do not require agreement from other parties and arise from management decisions. Thus retained profits are a source of internal finance because the directors have the power to retain profits without the agreement of shareholders.

When considering the external sources of finance, it is probably helpful to distinguish between long-term and short term sources of finance. In practice, these terms are not tightly defined but for the purposes of this lesson, long term finance will be defined as a source of finance that is due for repayment after approximately one year, whereas short-term finance will be defined as a source of finance that is repayable within approximately one year.

Figure 1 summarises the main sources of external finance available for a business.



ORDINARY SHARES/COMMON STOCK

Ordinary share capital forms the backbone of the financial structure of a business. It represents the risk finance. Since a company is owned by its shareholders, raising additional finance by issuing new ordinary shares has ownership and control implications which merit careful consideration. Equity finance is raised through the sale of ordinary shares to investors. This may be a sale of shares to new owners, perhaps through the stock market as part of a company's initial listing or it may be a sale of shares to existing shareholders by means of a rights issue. Ordinary shares are bought and sold regularly on stock exchanges throughout the world and ordinary shareholders, as owners of a company, want a satisfactory return on their investment.

The ordinary shares of a company must have a par value (nominal value by law and cannot be issued for less than this amount). The nominal value of an ordinary share, bears no relation to its market value and ordinary shares with a nominal value of Gh 25p may have a market price of several Ghana cedi.

There is no fixed rate of dividend and ordinary shareholders will receive a dividend only if profits available for distribution still remain after other investors (preference shareholders and lenders) have received their returns in the form of dividend payouts or interest. If the business is closed down, the ordinary shareholders will receive any proceeds from asset disposals only after lenders and creditors, and in some cases, after preference shareholders, have received their entitlements.

Because of the high risk associated with this form of investment, ordinary shareholders will normally require the business to provide a comparatively high rate of return.

Ordinary shareholders have a limited loss liability, which is based on the amount they have agreed to invest in the business. However, the potential returns from ordinary shares are unlimited. This is because, after preference shareholders and lenders have received their returns, all the remaining profits will accrue to the ordinary shareholders.

Ordinary shareholders will exercise control over the business: they are given voting rights, which gives them the power to elect the directors and to remove them from office.

In sum, ownership of ordinary shares gives right to ordinary shareholders on both an individual and collective basis. From a corporate finance perspective, some of the most important rights of shareholders are;

a. To attend general meetings of the company
b. To vote on the appointment of directors of the company
c. To vote on the appointment, remuneration and removal of auditors
d. To receive the annual accounts of the company and the report of its auditors
e. To receive a share of any dividend agreed to be distributed

f. To vote on important company matters such as permitting the repurchase of its shares, using its shares in takeover bid or a change in its authorized share capital
g. To receive a share of any asset remaining after the company has been liquidated
h. To participate in a new issue of shares in the company (the pre-emptive right)

PREFERENCE SHARES

Preference shares offer investors a lower level of risk than ordinary shares. Provided that there are sufficient profits available, preference shares will normally be given a fixed rate of dividend each year and preference dividends will be paid. Where a business is closed down, preference shareholders may be given priority over the claims of ordinary shareholders. **(The documents of incorporation will determine the precise rights of preference shareholders in this respect).**

Because of the lower level of risk associated with this form of investment, investors will be offered a lower level of return than that normally expected by ordinary shareholders.

Preference shareholders are not usually given voting rights, although these may be granted where the preference dividend is in arrears.

TYPES OF PREFERENCE SHARES THAT MAY BE ISSUED

(1) CUMMULATIVE preference shares give investors the right to receive arrears of dividends that have arisen as a result of there being insufficient profits in previous periods. The unpaid amount will accumulate and will be paid when sufficient profits have been generated.

(2) NON- CUMMULATIVE Preference shares do not give investors this right. Thus, if a business is not in a position to pay the preference dividend, due for a particular period, the preference shareholder loses the right to receive the dividend.

(3) PARTICIPATING PREFERENCE SHARES give investors the right to a further share in profit after they have been paid their fixed rate and ordinary shareholders have been awarded a dividend. Only when profit in that year exceeds an agreed amount.

(4) REDEEMABLE PREFERENCE SHARES allow the business to buy back the shares from shareholders at some agreed future date. Redeemable preference shares are seen as a lower risk investment than non-redeemable shares and so tend to carry a lower dividend. A business can also issue redeemable ordinary shares but these are rare in practice.

Review Question

Would you expect the market price of ordinary shares or preference shares to be the more volatile? Why?

Answer

The dividends of preference shares tend to be fairly stable overtime and there is usually an upper limit on the returns that can be received. As a result, the share price, which reflects the expected future returns from the share, will normally be less volatile.

Preference share capital is similar to loan capital in so far that both offer investors a fixed rate of return. However, preference share capital is a far less popular form of fixed-return capital than loan capital. An important reason for this is that dividends paid to preference shareholders are not allowable against the taxable profits of the business, whereas interest paid to leaders is allowable.

LOAN CAPITAL

Most businesses rely on loan capital, as well as share capital, to finance operations. The major risk facing those who invest in loan capital is that the business will default on interest payments and capital payments. To protect themselves against this risk, lenders often seek some form of **security** from the business. This may take the form of assets pledged either by a fixed charge on particular assets held by the business, or a **floating charge,** which "hovers" over the whole of the business's assets. A floating charge will cease to "hover" and become fixed on particular assets in the event the business defaults on it s obligations.

Not all assets will be acceptable to investors as a form of security. Assets to be pledged must have the following characteristics.

a) They must be non perishable.
b) They must be capable of being sold easily.
c) They must be fairly high in value relative to their size.

Not all assets will be acceptable to investors as a term of security. The availability of asset-based security means that lenders, in the event of default, have the right to seize the assets pledged and sell these in order to obtain the amount owing. Any amounts remaining from the proceeds of the sale, after the investor's claims to the business have been met will be returned to the business.

Lenders may further seek protection through the use of **loan covenants.** These are obligations or restrictions on the business that form part of the loan contract, such covenants may impose;

a) The right of lenders to receive particular financial reports concerning the business.
b) An obligation to insure the assets that are offered as security.
c) A restriction on the right to issue further loan capital without prior permission of the existing lenders.
d) A restriction on the disposal of certain assets held.
e) A restriction on the level of dividend payments or level of payment made to directors.
f) Minimum acceptable levels of liquidity or maximum acceptable levels of gearing.

Any breach of these restrictive covenants can have serious consequences for the business. The lender may demand immediate repayment of the loan in the event of a material breach.

BONDS, LOAN STOCK AND DEBENTURES

One form of long term loan is the debenture. This is simply a loan that is evidenced by a trust deed. The debenture loan is frequently divided into units (rather like share capital) and investors are invited to purchase the number of units they require. The debenture loan may be redeemable or irredeemable. Debentures of public limited companies are often traded on the stock exchange and their listed value will fluctuate according to the fortunes of the business, movements in interest rates and so on.

Loan stock and debentures are examples of long term bonds or debt securities with a par value which is usually (in the UK) £100 and a market price determined by buying and selling in the bond market. The interest rate or coupon is based on the par value and is usually paid once or twice each year. For example a fixed interest 10% bond will pay the holder £10 per year in interest, although this might be in the form of £5 paid twice each year.

While the terms debenture and loan stock can be used interchangeably, since a debenture is as implied, a written acknowledgement of indebtedness, a debenture is usually taken to signify a bond that a secured by a trust deed against corporate assets, whereas loan stock is usually taken to refer to an unsecured bond. The debenture trust deed will cover in detail such matters as;

a. any charges on the assets of the issuing company (security)
b. the way in which interest is paid
c. procedures for redemption of the issue
d. the production of regular reports on the position of the issuing company
e. the power of trustees to appoint a receiver
f. and any restrictive covenant intended to protect the investors of debt finance

The debenture may be secured against assets of the company by either a fixed or floating charge. A fixed charge will be on specified assets which cannot be disposed of while the debt is outstanding: if the assets are land and buildings, the debenture is called a mortgage

debenture. A floating charge will be on a class of assets such as current assets and so disposal of some assets is permitted. In the event of default, for example non-payment of interest, the floating charge will crystalize into a fixed charge on the specified class of assets.

CONVERTIBLE LOANS AND DEBENTURES

A convertible loan or debenture gives an investor the right to convert a loan into ordinary shares at a given future date and at a specified price. The investor remains a lender to the business and will receive interest on the amount of the loan until such time as the conversion takes place. The investor is not obliged to convert the loan or debenture to ordinary shares. This will only be done if the market price of the shares at the conversion date exceeds the agreed conversion price.

An investor may find this form of investment a useful 'hedge' against risk (that is, it can reduce the level of risk). This may be particularly useful when investment in a new business is being considered. Initially, the investment is in the form of a loan and regular interest payments will be made. If the business is successful, the investor can then decide to convert the investment into shares. The form of security is an example of a **'financial derivative'.**

EUROBONDS

Eurobonds are bonds which are outside the control of the country in whose currency are denominated and they are sold in different countries at the same time by large companies and government. A Eurobond, for example, is outside the jurisdiction of USA. Eurobonds typically have maturities of five to fifteen years and interest on them, which is payable gross (i.e. without deduction of tax), may be at either a fixed or a floating rate. The Eurobond market is not as tightly regulated as domestic capital markets and so Eurobond interest rates tend to lower than those on the comparable domestic bonds.

Eurobonds are bearer securities, which means that their owners are unregistered and so they offer investors the attraction of anonymity. Because Eurobonds are unsecured, companies that issue them must be internationally known and have an excellent credit rating. Common issue currencies are the US dollar (Eurodollar), Yen (Euroyen) and Sterling (Eurosterling).

WARRANTS

Holders of **warrants** have the right, but not the obligation, to acquire ordinary shares in a business at a given price and future date. In the case of both convertible loans and warrants, the price at which shares may be acquired is usually higher than the market price prevailing at the time of issue.

The warrant will usually state the number of shares the holder may purchase and the time limit within which the option to buy shares can be exercised. Occasionally perpetual warrants are issued that have no set time limits. Warrants do not confer voting rights or entitle the holders to make any claims on the assets of the business. They represent another form of financial derivative.

Share warrants are often provided as a 'sweetner' to accompany the issue of loan capital or debentures. The issue of warrants in this way may enable the business to offer lower rate of interest so as to negotiate less restrictive loan conditions. The issue of warrants enable the lenders to benefit from future business success providing the option is exercised. However, an investor will only exercise this option, if the market price exceeds the option price within the time limit specified; share warrants may be detachable, which means that, they can be sold separately from the loan capital.

LEASING

Leasing is a form of short- to medium term financing which in essence refers to hiring an asset under an agreed contract. The company hiring the asset is called the ***lessee*** whereas the company owning the asset is called the ***lessor***. In corporate finance, we are concerned on the one hand with the reasons why leasing is a popular source of finance, and on the other hand, with how we can evaluate whether leasing is an attractive financing alternative in a particular case.

With leasing, the lessee obtains the use of an asset for a period of time while legal ownership of the leased asset remains with the lessor. This is where leasing differs from hire purchase, since legal title passes to the purchaser under hire purchase when the final payment is made. For historical reasons, banks and their subsidiaries are by far the biggest lessors.

Forms of leasing

Leases can be divided into two types: operating leases and finance leases.

Operating leases

Operating leases are in essence rental agreements between a lessor and a lessee in which the lessor turns to be responsible for servicing and maintaining the leased asset. The lease period is substantially less than the expected economic life of the leased asset. So assets leased under operating leases can be leased to a number of different parties before they cease to have any further use. The types of assets commonly available under operating leases include cars, computers and photocopiers.

Finance leases

When a business needs a particular asset (for example, an item of plant), instead of buying it direct from a supplier, the business may decide to arrange for another business (typically a financial institution such as a bank) to buy it and then lease it to the business. A finance lease, as such an arrangement is known, is in essence a form of lending. Although legal ownership remains with the financial institution, **(the lessor),** a finance lease arrangement transfers virtually all the rewards and risks that are associated with the item being leased to the business **(the lessee).** The lease agreement covers a significant part of the life of the item being leased and often cannot be cancelled.

A finance lease usually has a primary period and a secondary period. The primary lease period covers most, if not all, of the expected economic life of the leased asset. Within this primary period, the lessor recovers from the primary lease payments the capital cost of the leased asset and his required return. Within the secondary period, the lessee may be able to lease the asset for a small or nominal rent.

A **finance lease** can be contrasted to an operating lease where the rewards and risk of ownership stay with the owner and where the lease is short term in nature. An example of an operating lease is where a builder hires earth moving equipment for a week in order undertakes a particular job.
Some of the reasons why businesses adopt this form of financing include the following;

a) **Ease of borrowing** – Leasing may be obtained more easily than other forms of long term finance. Lenders often require some form of security and a profitable track record before making advances to the business. However, a lessor may be prepared to lease assets to a new business without a track record and to use the leased assets as security for the amounts owing.
b) **Cost** – Leasing agreements may be offered at reasonable cost. As the asset leased is used as security, standard lease arrangements can be applied and detailed credit checking of Lessees may be unnecessary. This can reduce administrative costs for the lessor.
c) **Flexibility** – Leasing can help provide flexibility where there are rapid changes in technology. If an option to cancel can be incorporated into the lease, the business may be able to exercise this option and invest in new technology as it becomes available. This will help the business avoid the risk of obsolescence.
d) **Cash flows** – Leasing rather than purchasing an asset outright means that large cash outflows can be avoided. The leasing option allows cash outflows to be smoothed out over the asset's life. In some cases, it is possible to arrange for low lease payments to be made in the early years of the asset's life, when cash inflows may be low, and for these to increase overtime as the asset generates positive cash flows.

SALE AND LEASEBACK ARRANGEMENT

A sale and leased back arrangement involves a business selling an asset to a financial institution in order to raise finance. However, the sale is accompanied by an agreement to lease the asset back to the business to allow it to continue to use the asset. The payment under the lease arrangement is a business expense that is allowable against profits for taxation.

Freehold property is often the asset that is the subject of such an arrangement. When this is the case, there are usually rent reviews at regular intervals throughout the period of the lease and the amount payable in future years may be difficult to predict. At the end of the lease agreement, the business must either try to renew the lease or find alternative premises.

HIRE PURCHASE AGREEMENT

Hire purchase is a form of credit used to buy an asset. Under the terms of a hire purchase agreement, a customer pays for an asset by installment over an agreed period. Normally, the customer will pay an initial deposit (down payment) and then make installment payments at regular intervals (perhaps monthly) until the balance outstanding has been paid. The customer will usually take possession of the asset after payment of the initial deposit although legal ownership of the asset will not be transferred until the final installment has been paid.

Hire purchase agreements will often involve three parties;

a. The supplier
b. The customer and
c. A financial institution

SHORT TERM SOURCES OF FINANCE

A short-term source of borrowing is one that is available for a short time period. Although there is no agreed definition of what 'short term' means, we shall define it as being approximately one year or less. The major sources of short-term borrowing are:

a) Bank overdrafts
b) Bills of exchange
c) Debt factoring
d) Invoice Discounting

Each is discussed further below:

Bank Overdrafts

Bank overdrafts represent a very flexible form of borrowing. The size of an overdraft can (subject to bank approval) be increased or decreased according to the financing requirement of the business. It is relatively inexpensive to arrange and interest rates are often very competitive. The rate of interest charged on an overdraft will vary, however, according to how credit worthy the customer is perceived by the bank.

It is also fairly easy to arrange sometimes an overdraft can be agreed by a telephone call to the bank. In view of these advantages, it is not surprising that this is an extremely popular form of short term financing.

Banks prefer to grant overdrafts that are self – liquidating: that is, the funds applied will result in cash inflows that will extinguish the overdraft balance.

The banks may ask for forecast cash flow statements from the business to see when the overdraft will be repaid and how much finance is required. The bank may also require some form of security on amounts advanced.

One potential drawback with this form of finance is that it is repayable on demand. This may pose problems for a business that is illiquid.

However, many businesses operate using an overdraft and this form of borrowing, although in theory regarded as short-term, can often become a permanent source of finance.

+Bills of Exchange

A bill of exchange is similar, in some respects, to an IOU. It is a written agreement that is addressed by one person to another, requiring by the person to whom it is addressed to pay a particular amount at some future date.

Bills of exchange are used is trading transactions and are offered by a buyer to a supplier in exchange for goods. The supplier who accepts the bill of exchange, may either keep the bill until the date the payment is due (this is usually between 60 and 180 days after the bill is first drawn up) or may present it to a bank for payment.

The bank will usually be prepared to pay the supplier the face value of the bill from the buyer at the specified payment date.

The advantage of using a bill of exchange is that it allows the buyer to delay payment for the goods purchased but provides the supplier with an opportunity to receive immediate payment from a bank if required. Nowadays, bills of exchange are not widely used for trading transactions within the U.K, but they are still used for overseas trading.

Debt factoring

Debit factoring is a service offered by a financial institution (know as a factor). Many of the large factors are subsidiaries of commercial banks.

Debt factoring involves the factor taking over the debt collection for a business. In addition to operating normal credit control procedures, a factor may offer to undertake credit investigations and advise on the credit worthiness of customers. Two main forms of factoring agreements exist.

a) **Recourse Factoring** – where the factor assumes no responsibility for bad debts arising from credit sales.
b) **Non – Recourse factoring**- where the factor assumes responsibility for bad debts up to an agreed amount.

The factor is usually prepared to make an advanced to the business up to 80 percent of approved trade creditors. The advance is usually paid immediately after the goods have been supplied to the customer. The balance of the debt, less any deductions for fees and interest, will be paid after an agreed period or when the debt is collected. The charge made for the factoring service is based on total turnover and is often around 2 – 3percent of turnover. Any advances made to the business by the factor will attract a rate of interest similar to the rate charged on bank overdrafts.

ADVANTAGES

1) Factoring can result in savings in credit management and can create more certain cash flows.
2) It can also release the time of key personnel for more profitable ends. This may be extremely important for smaller businesses that rely on the talent and skills of few key individuals.
3) In addition, the level of finance available will rise 'spontaneously' with the level sales. The business can decide how much of the finance available is required and can use only that which it needs.

Disadvantages

There is a possibility that some will see a factoring arrangement as an indication that the business is experiencing financial difficulties. This may have an adverse effect on confidence in the business. For this reason, some businesses try to conceal the factoring arrangement by collecting outstanding debts on behalf of the factor.

Invoice Discounting

Invoice discounting involves a business approaching a factor or other financial institution. For a loan based on a proportion of the face value of credit sales outstanding if the institution agrees, the amount advanced is usually 75-80 percent of the value of the approved sales invoices outstanding.

The business must agree to repay the advance within a relatively short period – perhaps 60 or 90 days.

The responsibility for collection of the trade debts outstanding remains with the business and repayment of the advance is not dependent on the trade debt being collected,

Invoice discounting will not result in such a close relationship developing between the client and the financial institution as factoring. Invoice discounting may be a one off arrangement whereas debt factoring usually involves a longer term arrangement between the client, and the financial institution.

The Factoring Process

1) Client Business sells goods on credit.
2) Factor will invoice credit customer.
3) Factor pays 80% to client immediately.
4) Customer pays amount owing to factor.
5) Factor pay 20% balance to client (less fees) when credit customer pays amount owing.

Review Questions

- Explain what external sources of finance is
- Identify the short-term external sources of finance and the long term external sources of finance

Section 2

Objectives

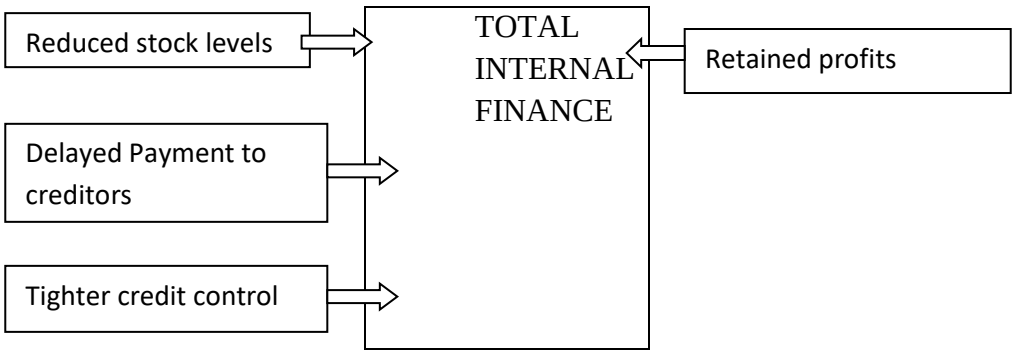
By the end of the section, you should be able to

- Explain what internal sources of finance is
- Identify the short-term internal sources of finance
- Identify the long term internal sources of finance

Internal Sources of Finance

In addition to external sources of finance, there are certain internal sources of finance that a business may use to generate funds for particular activities. These sources are represented below:

Major Internal sources of finance



The figure shows that the major long-term source of internal finance is the profits that are retained rather than distributed to shareholders.

The major long term source of internal finance is the profits that are retained rather than distributed to shareholders.

Retained Profits

Retained profits are a major source of finance (internal & external) for most businesses, By retaining profits within the business rather than distributing to shareholders in the form of dividends, the fund of the business are increased.
The retention of profit is something that is determined by the directors of the business. They may find it easier simply to retain profits rather than to ask investors to subscribe to a new share issue.

Advantages

1) When issuing new shares, the issue costs may be Substantial and there may be uncertainty over the success of the issue.
2) Retaining profits will have no effect over the control of the business by existing shareholders. However where new shares are issued to outside investors, there will be some dilution of control. Suffered by existing shareholders.

Disadvantages

A problem with the use of profits as a source of finance however, is that the timing and level of profits in the future cannot always be reliably determined.

Tighter Credit Control

If a business has a proportion of its assets in the form of debtors, there is an opportunity cost because the funds are tied up and cannot be used for more profitable purposes. By exerting tighter control over trade debtors, it may be possible for a business to reduce the proportion of assets held in this form and to release funds for other purposes.

It is however, important, to weigh the benefits of tighter credit control against the likely costs in the form of lost customer goodwill and lost sales.

To remain competitive, a business must take account of the needs of its customers and the credit policies adopted by rival businesses within the industry.

Reducing Stock Levels

This is an internal source of finance that may prove attractive to a business. As with debtors, holding stocks imposes an opportunity cost on a business, however, a business must ensure that there are sufficient stocks available to meet likely future sales demand. Failure to do so will result in lost customer goodwill and lost sales.

Delayed Payment to creditors

By delaying payment to creditors, business fund are retained within the business for other purposes. This may be a cheap form of finance for a business.

However, as we have seen under working capital management, there may be significant costs associated with this form of financing.

Review Questions

1. Explain what internal sources of finance is
2. Identify the short-term internal sources of finance and the long term internal sources of finance

Section 3

Objectives

By the end of the section , you should be able to

- Indicate the sources of funds of firms in Ghana
- Identify the short-term sources of funding in Ghana
- Discuss the long-term sources of funds in Ghana

Specific sources of financing in Ghana

Sources of funds in Ghanaian firms

Analysis of the Balance sheet of Ghanaian firms indicates the following as the most common sources of funds:

Bank financing

- Overdraft
- Line of credit
- Short-term loans
- Mortgage loans
- Promissory note/ note payable
- Foreign loans

Financing derived from doing business

- Accrued expenses
- Trade credit : suppliers credit

Financial markets and other sources

- Commercial paper
- Banker's acceptances

- Long-term loans
- Concessionary loans from official and multilateral sources
- Equity or shares

Some of these are sources of short-term funds, some are medium sources and the rest are long-term sources.

SHORT-TERM Sources of funds in Ghana

The short-term sources include

- Promissory notes
- Commercial paper
- Banker's acceptances
- Bills of exchange

A **promissory note** is sometimes called a note payable. it is a contract in which one party makes an unconditional promise in writing to pay a sum of money to the other party , either at a fixed or determinable future time (usually up to a year), or on demand , under specific terms.

Commercial paper is a money-market security issued / sold by large banks and corporations for funds to meet short-term obligations, and is only backed by a corporation's promise to pay the face amount on the maturity date specified on the note.

Since it is not backed by collateral, only firms with excellent credit standing are able to sell their commercial paper at a reasonable price. Commercial paper is usually sold at a discount from face value, and carries short repayment dates, up to a year.

Sometimes, it is necessary for the bank of the issuing firm to guarantee payments at maturity to make these securities more marketable. In such a case, the commercial paper is referred to as **a banker's acceptance.**

A related term is a **bill of exchange**. A bill of exchange is a written order by the drawer issuer to the drawee bank to pay money to the payee beneficiary.

The most common type of bill of exchange is the cheque. A cheque is defined as a bill of exchange drawn on a bank and payable on demand. Cheques aside, bills of exchange are used primary in **international trade**, and are written orders by one person to his/her bank to pay the bearer a specific sum on a specific date sometime in the future.

Also used in international trade are **letters of credit.** These represent undertakings by the banks of the importers that the exporter will be paid when the goods are shipped and / or delivered to the importer.

Promissory notes, commercial paper, banker's acceptances, bills of exchanges and letters of credit are all short-term securities.

Trade credit refers to credit extended to the buyer of goods by the supplier. The buyer has a short period within which to pay.

Accruals are short-term expenses that have been incurred but have not been paid. Examples are salaries and wages due at the end of the month and utility bills not yet paid. Needless to say, these are also short-term. For a firm that pays salaries and wages on the 30th of the firm, its staff would have worked for 29 days without pay before they are paid on the 30th day. Salaries for the 29 days are said to have **accrued.**

Short-term bank loans, line of credit and overdraft. These are all short-term loan arrangements with the bank. As the name implies, a short-term bank loan is a loan from the bank.

A **line of credit** represents an arrangement between the bank and the firm, whereby the bank grants the firm access to bank funds, up to a maximum, anytime the firm needs the money. The firm does not have to come and negotiate each time it needs the money.

An overdraft facility is protection given the firm by the bank that assures the firm that whenever its cheques up to a given maximum amount are presented for payment the bank will honour the cheque even if the firm does not have enough money in the account.

Further analysis indicates that the two largest sources of short-term funds in Ghana are trade credits also called creditors and short-term bank loans and overdrafts.

Long-term loans in Ghana

Long-term debt is not a major source of funding for firms in Ghana. In general, long-term debt can be contracted by private arrangement, or contracted from the general public.

The Government of Ghana has been more active in issuing long-term debts. To encourage activity on the newly established Ghana Stock Exchange, the government in 1990 issued 5-year loans. These were called **Ghana Stock Exchange Commemorative Registered Stock 1995**. These have since matured.

In the early 2000s, the Government issued two to three year debt securities called **Government of Ghana Indexed-Linked Bonds.**

Now, there are **Government of Ghana 2-year, 3-year and 5-year bonds.**

One can buy and sell all the government Long-term debts on the Ghana stock exchange.

Equity in Ghana

Many of the firms listed on the Ghana stock exchange periodically issue shares to the public to raise money to undertake projects. These are usually long-term projects.

These are usually long-term projects.

Sometimes, the invitation to buy shares in the firms is open to the existing shareholders and others who now wish to become shareholders. In many other cases, the invitation is extended only to existing shareholders.

The balance sheets show that shareholders funds in the firms are presented in a number of categories. The most common ones are

Ordinary shares: amount raised at the time shares were sold.

Capital surplus: excess of the value of assets that have been reappraised above the amounts paid for the assets

Income surplus: earnings of the firm that have been re-invested in the firm and not distributed to shareholders as dividends.

Review Questions

1. Explain the sources of funds of firms in Ghana
2. Identify the short-term sources of funding in Ghana and the long-term sources of funds in Ghana

Section 4

Objectives

At the end of this section, you should be able to

- Identify major obstacle to the growth of small businesses
- Explain important sources of long term finance that are now available to small businesses
- Explain the venture capital process

FINANCING SMALL BUISNESSES

PROVIDING LONG TERM FINANCE FOR SMALL BUSINESSES

Although the stock exchange provides an important source of long-term finance for large businesses, it is not really suitable for small businesses.

Because of the aggregate market value of shares that are to be listed on the stock exchange, issuing costs and other issues, small businesses must look elsewhere for help in raising log term finance. However, various reports and studies over the past 70 years have highlighted the problems that they encounter in doing so. -These problems, which can be a major obstacle to growth, include:

a) A lack of financial management skills (Leading to difficulties in developing credible business plans that will satisfy lenders).
b) A lack of knowledge concerning the availability of sources of long-term finance.
c) Providing the levels of security required by some lenders.
d) Meeting rigorous assessment (for e.g. a good financial track record over five years).
e) An excessively bureaucratic screening process for loan applications.

One consequence of these difficulties can be excessive reliance on short-term sources of finance, such as bank overdrafts to fund the business.

In addition to the problems identified, it is worth pointing out that the cost of finance for small businesses is often higher than for large businesses because of the higher risks involved.

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

Although obtaining long term finance is not always easy for small businesses, things have improved over recent years. Some of the more important sources of long term finance that are now available are considered below:

Venture Capital

Venture Capital is long-term capital provided to small and medium sized businesses wishing to grow but which do not have ready access to stock markets. The supply of venture capital has increased rapidly in the U.K over recent years since both government and corporate financiers have shown greater commitment to entrepreneurial activity.

In 1999, £7.8 billion of new funds was raised from venture capital and over £35 billion had been invested by U.K. ventures capitalists since 1983. This makes the U.K. the leading provider of venture capital funds outside the U.S.A.

Venture Capital in Ghana

The Ghana Venture Capital Fund (GVCF) is a venture capital fund which started operations in 1992. It has two principal shareholders: Aurora Capital ltd and Social Security and National Insurance Trust (SSNIT). The fund is managed by Venture fund management Company limited (VFMC). VFMC is owned 70% by Aurora Fund, 20% by SSNIT and 10% by Inter Afrique Ltd.

Some of the companies GVCF has funded include: Danafco (pharmaceuticals); GeeWaste (Solid waste management); Ghana Aluminium (Aluminum building products); Ghana Emulsion Co (emulsion bitumen); Leasefric Ghana (Leasing) ; Paper Conversion Co. (paper products); South Akim Manufacturing (crown corks); Sydals Farms (poultry farming) ; Voltic Ghana (mineral water); Pioneer Aluminium Factory (aluminium products).

The Venture Capital ACT, the Trust Fund is to:

- Provide financial resources to be invested in the SME sector,
- Develop and promote a viable venture capital industry in the country.
  "The mission of VCTF is stated at its website (http://www.venturecapitalghana.com.gh/AboutUs/tabid/56/Default.aspx).

The Government of Ghana established the Venture Capital Trust Fund (VCTF) to provide low cost financing to businesses so they can grow, create wealth and jobs. The vision of Government is that this scheme will enrich businesses with enough resources to create jobs. Consequently, with enough wealth and jobs created, Government revenues would increase (through taxes) and ultimately add to the pool of funds available to be down-streamed to businesses for investments''

The functions of the VCTF are basically two:

- The provision of credit and equity financing to eligible Venture Capital Financing Companies to support small and medium scale enterprises which qualify for equity , quasi-equity and credit financing;
- The provision of monies to support other activities and programs for the development and promotion of venture capital financing in the country.

The VCTF is managed by a nine member Board of Trustees appointed by the President of Ghana in consultation with the Council of State. There should be people of integrity, knowledge, expertise and experience in the venture capital industry. The Administrator of the VCTF is also a member of the Board.

The **functions of the Board** include inter alia:

- Pursue policies to achieve the object of the Trust Fund;
- Collect or arrange to be collected , monies lawfully due to the Trust Fund through procedures to be determined by the Minister;
- Monitor and evaluate the operations and performance of the Venture Capital Financing Companies in respect of monies received from the Fund;
- Ensure accountability of the Trust Fund by defining appropriate procedures for its management;
- Disburse monies from the Trust Fund;
- Invest some of the monies of the Trust in such safe securities as its considers financially beneficial to the Trust Fund;
- Receive and process applications for funds from Venture Capital Financing Companies;
- Put in place structures and guidelines that will ensure that Venture Capital Financing Companies live up to their responsibilities stated in the agreement between the between the Venture Capital Financing Companies and the SMEs they fund;
- In consultation with the Minister, formulate policies to determine among other things
- The terms under which any monies from the Trust Fund will be allocated to eligible Venture Capital Financing Companies under the Act;
- The maximum amount of money that may be granted by the Trust Fund to the applicant; and
- The sectors of the economy in which the monies from the Trust Fund may be invested ;
- Publish such manuals or guidelines as it considers necessary to regulate the conduct and operations of Venture Capital Financing Companies in relation to monies from the Trust Fund.
- Small and medium scale enterprises (SMEs) in relation to disbursements made from monies from the Trust Fund.

Individuals seeking financial may not deal directly with VCTF. Instead, the Trust Fund invests in companies through its partnership entities called Venture Capital Financing

Companies (VCFC). These are tax exempt financial institutions established as partnership companies between the Trust Fund and private sector participants. The sole authorized business of a VCFC is to invest private sector businesses.

Some Guidelines

- SMEs intending to benefit from the fund must be engaged in economic activity with value not exceeding USD 1 million, excluding land and building;
- It can be a start-up or an existing business and it has to be privately owned. that is, not a Government institution;
- The promoter (initiator) of the business is expected to bear 50% of the funding requirement for the business and the promoter will always hold the majority ownership of the company;
- While the funds are opened to every business, priority sectors are established based upon Government's economic growth programme (GPRS). Currently the priority sectors identified are Agriculture; Pharmaceutical; Information and Communication Technology; Tourism; and Energy;
- Viability of the project is the most important criteria to quality for funding , and not because the project is in the priority sector;
- Funding is not provided for businesses that engage in direct imports to sell;
- However, merchandising or wholesaling of locally manufactured goods is permissible.

Processes and Procedures for Provision of Funds to SMEs

- VCTF will work in partnership with intermediary institutions , the VCFCs referred to above;
- The VCFCs are financial institutions whose sole authorized business under the Trust Fund Act is to assist SMEs by providing capital and business advisory services to them. The VCFCs are to be managed by fund managers who are licensed by the Securities and Exchange Commission (SEC). Currently VCFCs include State Insurance Company (SIC).
- Submission of Application by SME/Individuals – initial submission of the following documentation to VCFC:
  - A comprehensive Business Plan with three (3) year projections;
  - Audited financial reports for past three years for existing business;
  - Tax clearance certificate (VVI elaborate);
  - Incorporation Papers (if applicable);
  - Any other information that may be requested.
- Analysis, Evaluation and Due Diligence report by Fund Manager;
- Initial (Desktop) review of business plan and other documentation including incorporation documents, tax clearance certificate, etc. if attractive; then
- Second Round Review: Verification of claim, Visit to facility, Authentication , Title search , etc;
- Due Diligence – Legal, Technical and Financial;

- All these processes are necessary because with venture investment No collateral or security is required against the investment. No recourse to any property of the business in case of failure of the investment;

(The pace of the process can be speeded up)

- Agree on Term Sheet with potential investee company and submits same to Investment committee of the VCFC;
- Final Due Diligence to ascertain status of the potential investee co. if no material change in the business then agreement is signed;
- Disbursement subject to corrections to be made by Business Promoter in the business before start of injection of Venture Money.

Disbursement of Funds

- Drawdown method based upon approved business plan;
- Reduce incidence of funds in the hands of business owner to avoid misapplication of funds;
- Monitoring processes during investment period;
- Post investment periodic visits to client;
- Submission of monitoring reports by client to verify and ascertain progress for achieving targets and benchmarks.

Exit Mechanism Agreed by Parties in the Investment Agreement

- Majority Shareholder Buy Back
- Third Party Private Placement
- IPO on the Stock Exchange

The minimum investment by a VCFC in an investee company is GH¢25,000. The Fund's maximum investment is 10% of its capital, but VCTF's portion should not exceed GH¢5,000,000.

The main types of investment that are likely to be of interest to venture capitalists and the process by which investments are undertaken are considered below.

Types of Investment

Venture capitalists are interested in investing in small and medium sized businesses that have higher levels of risk than would be acceptable to many traditional lenders. The attraction of investing in higher-risk businesses for the venture capitalist is the prospect of higher returns. The investment is normally long term and will usually be for a period of five years or more.

Venture capitalists provide share capital and loan finance for different types of business situations including:

A. **START UP CAPITAL:** This is available to businesses that are still at the concept stage of development through to those businesses that are ready to commence trading.

B. **GROWTH CAPITAL:** This is aimed at providing additional funding for young expanding businesses.

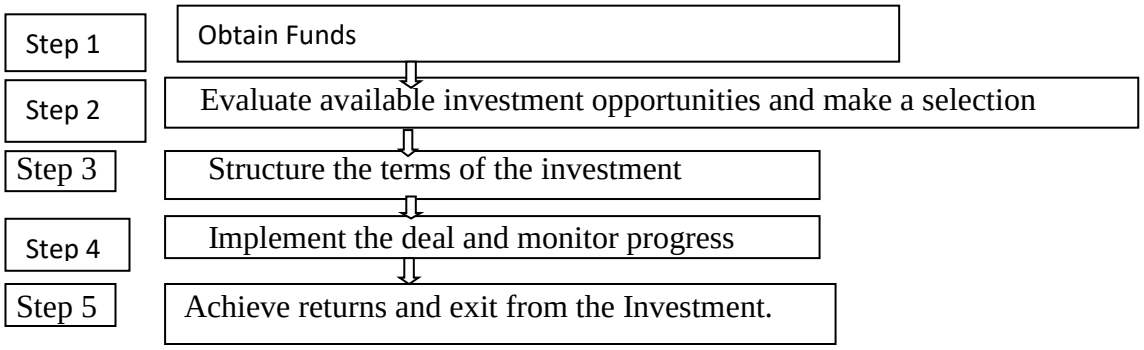
C. **BUY - OUT OR BUY - IN CAPITAL:** This is used to fund the acquisition of a business by the existing management team or by a new management team. The two most popular kinds of management acquisition are where a large business wishes to divest itself of one of its operating, units and where a family business wishes to sell out because of succession problems.

D. **SHARE PURCHASE CAPITAL:** This is used to fund the purchase of shares in a business in order to buy out part of the ownership of an existing business.

E. **RECOVERY CAPITAL:** This is rescue finance which is used to turn around a business after a period of poor performance. In practice, **venture capitalists** display a clear preference for investing in **growth businesses** and **management acquisitions** rather than business start-ups. Although business start-ups may be important to the health of the economy, they are very high risk: investing in existing businesses is a much safer bet.

The Venture Capital Process

Venture capital investment involves a five – step process that is similar to the investment process undertaken within a business. The five steps are considered below:



Step 1: Obtaining the Funds

Venture capitalists obtain their funds from various sources including large financial institutions (for e.g. Pension funds), wealthy individuals and direct appeals to the public. Having obtained the funds there is often a two or three year time lag between obtaining the required amount of funds and investing in appropriate investment opportunities. This is partly because new investment opportunities may take some time to identify and partly because, once found, these opportunities require careful investigation.

Step 2: Evaluating Investment opportunities and making a selection

Once opportunities have been identified, the business plans prepared by the management team will be
reviewed and an assessment will be made of the investment potential of the business. The venture capitalist will usually be interested in the following areas:

a) The market for the product.
b) The business process and the way in which they can be managed efficiently.
c) The quality of management.
d) The opportunities for improving performance.
e) The types of risks involved and the ways in which they can be managed.
f) The track record and future prospects of the business.

The financial attractiveness of the venture is often assessed using the internal rate of return (IRS) method.

Step 3: Structuring the terms of the investment

When structuring the financing agreement, venture capitalists will try to ensure that their own exposure to risk is properly managed. Some of the control mechanisms they establish within the financing agreements to protect their investments include the following:

i) The requirement to receive information on the progress of the business at regular intervals.

The venture capitalist will often stage the injection of funds over time rather than providing, all the required funds at the beginning of the venture.

They will use the information provided by the business, as well as information collected from other sources, as a basis for agreeing each staged payment. In this way the progress of the business is reviewed on a regular basis.

ii) In some cases the venture capitalist may manage the risk by sharing the financing requirements of the business with other venture capitalists. Establishing a financing syndicate

will reduce the potential risk for the venture capitalist, but it will also reduce the potential returns.

STEP 4: Implementing the deal and monitoring progress

Venture capitalists usually have a close working relationship with client businesses throughout the period of the investment. It is quite common for the venture capitalist to have a representative on the board of directors in order to keep an eye on the investment.

During the investment period, it is usual for the venture capitalist to offer expert advice on technical and marketing matters. In this respect they provide a form of consultancy service to their clients.

The venture capitalist will be keen to see whether the business plans prepared at the time of the initial investment are achieved. Those businesses that meet their key targets are likely to find the presence of the venture capitalists less intrusive than those businesses that do not.

STEP 5: Achieving Returns and Exiting from the Investment

A major part of the total returns from the investment is usually achieved through the final sale of the investment. The particular method by which the realization of the investment is to be made is, therefore, of great concern to the venture capitalist. **The most common form of trade sale (that is, where the investment is sold to another business). However, the floatation of the business on the stock exchange also provides an opportunity for the venture** capitalist to realize the investment. Other forms of exit may be employed including purchase of the investment by the management team and liquidation.

BUSINESS ANGELS

Business Angels are often wealthy individuals who have been successful in business. They are usually willing to invest somewhere between £10,000 and £100,000 in a short up business or a business that is at an early stage of development through a shareholding. Business angels fill an important gap in the market as the size and the nature of the investment that they find appealing will not often appeal to venture capitalists. In addition to providing finance, a business angel can usually offer a wealth of experience to budding tycoons.

Business angel offer an informal source of share finance and it is not always easy for owners of small business to locate a suitable angel. However, in the U.K, a number of business angel networks have now developed to help owners of small businesses find their perfect partner. The National Business Angels Network (NBAN) is an example of such a network and is supported by a number of financial institutions, and by the U.K. Department of trade and industry.

Government Assistance

Aryeetey et al (1994), Daniels and Ngwira (1992), the World Bank (1993) and a host of others have conducted extensive research in to the role that SME'S play as well as the problems they face. In Ghana, government through the ministry of trade and Industry, NBSSI, etc are helping SME'S to achieve their full potential.

According to Daniels & Ngwira, SME'S employ about 22% of the population in Developing Countries. In the UK, one of the most effective ways in which the government assists small businesses is through the small firm's loan guarantee scheme. This scheme aims to help small businesses that have viable business plans but which lack the security to obtain a loan.

Review Questions

1. Identify major obstacle to the growth of small businesses
2. Explain the venture capital process

UNIT 3

FINANCIAL PLANNING AND PROJECTED FINANCIAL STATEMENTS

INTRODUCTION:

PLANNING FOR THE FUTURE

It is vitally important that a business develops plans for the future. Whatever a business is trying to achieve, it is unlikely to be successful unless its managers have it clear in their minds what the future direction of the business is going to be.

Section 1

Objectives

At the end of the section, you should be able to

- Explain financial planning
- State the uses of financial plans
- Explain the key steps in the development of plans

Financial planning is a process of

- formulating consistent business and financial objectives for the firm
- projecting the financial impact of alternative operating strategies identified in strategic plan under alternative financial policies, such as capital structure , dividend policy , liquidity , liability management , under different assumption of operating environment
- weighing consequences and deciding which financial policies to adopt
- preparing contingency plans to alter financial strategies based on future developments

Uses of financial plans

- financial plans help establish goals for the firm and are used to motivate staff
- financial plans enable measuring of future performance against goals set in the financial plan.

Finance lies at the very heart of the planning process. The financial resources of a business are limited and must be applied in a way which enhances shareholder wealth. It is, therefore important to evaluate the financial implications of pursuing each proposed course of action. The development of plans involve the following key steps.

1. SETTING THE AIMS AND OBJECTIVES OF THE BUSINESS:

This is the starting point in the planning process. This will set out what the business is trying to achieve. It is sometimes useful to make a distinction between the goals and objectives of the business. The aims or goals of the business are often couched in broad terms and may be set out in the form of a mission statement. This statement is usually brief and will often articulate high standards or ideals for the business.

Objectives of a business are usually more specific than its aims. They will set out more precisely what has to be achieved and may include the following aspects of operations and performance.

(a) the kind of market the business seeks to serve
(b) the share of that market it wishes to achieve
(c) the kinds of products and or services which should be offered
(d) The levels of profit and returns to shareholders which are required (e.g. return on shareholders funds, dividends etc.)
(e) The levels of growth required (e.g. increase in assets, sales etc).

Objectives should be SMART (specific, measurable, achievable, realistic and time-bound) / quantifiable and should be consistent which the aims of the business.

The objectives of a business may include the following

(a) to obtain a 20% return on assets
(b) to work closely with customers in order to ensure their requirements are met
(c) to grow in size so as to become one of the 100 largest companies listed on the stock exchange etc.

2. IDENTIFYING THE OPTIONS AVAILABLE

To achieve the objectives of the business a number of possible options (strategies) may be available to the business. A creative search for the various strategies or options available should be undertaken by the managers. This will involve collecting information, which can be extremely time-consuming, particularly when the business is considering entering new markets or investing in new technology.

The type of information collected should provide an external analysis of the competitive environment relevant to each option and may include such matters as:

(a) market size and growth prospects
(b) level of competition within the industry
(c) bargaining power of suppliers and customers
(d) threat of substitute products
(e) relative power of trade unions, community interest groups, etc.

Information should also be collected which provides an internal analysis of the resources and expertise of the business available to pursue each option. Information concerning the capabilities of the business in each of the following areas may be collected.

(a) organization culture
(b) marketing and distribution
(c) manufacturing and production options
(d) finance and administration
(e) research and development
(f) information systems
(g) **human resources**

Any deficiencies or gaps in these areas which could affect the ability of the business to pursue a particular option must be identified.

3. EVALUATING THE OPTIONS AND MAKING A SELECTION

When deciding on the most appropriate option(s) to choose, the managers must examine information in relation to each option to see if that option fits with the objectives which have been set and to assess whether or not it is feasible to provide the resources required. The managers must also consider the effect of pursuing each option on the future financial performance and position of the business. It

is in the financial evaluation of the various options that projected financial statements have a valuable role to play.

The approach described above, suggests that decision-makers will systematically collect information and then carefully evaluate the various options available.

In practice however, decision makers may not be as rational and capable as implied in the process described above. Individuals may find it difficult to handle a wealth of information relating to a wide range of options. As a result, they may restrict their range of possible options and /or discard some information in order to prevent themselves from being overloaded. They may also adopt rather simple approaches to evaluating the mass of information provided which may not fit very well with the outcome they would like to achieve. This may mean that, in practice, information is often produced in summarized form and that only a restricted range of options will be considered. **Herbert Simon (1959)** referred to this phenomenon as bounded rationality and so managers must satisfice.

Review Questions

1. Explain financial planning and State the uses of financial plans
2. Explain the key steps in the development of plans

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Section 2

Objectives

By the end of the section, you should be able to

1. explain what projected financial statement means and why managers must show the financial implications of certain decisions
2. identify what projected statements normally comprise of
3. discuss any circumstances under which managers might be prepared to provide projected financial information to those outside the business

THE ROLE OF PROJECTED FINANCIAL STATEMENTS

Projected financial statements portray the predicted financial outcomes of pursuing a particular course of action. By showing the financial implications of certain decisions, managers should be able to allocate resources in a more efficient and effective manner.

The projected financial statements will normally comprise:

(a) a projected cash flow statement
(b) a projected profit and loss account and
(c) a projected balance sheet.

Where there are competing options, projected statements can be prepared for each of the options being considered. They will set out the expected revenues and costs associated with each option and will reveal the impact of these items on the future profitability, liquidity and financial position of the business.

When managers are developing a strategy for the future, a planning horizon of three to five years is typically employed and projected financial statements for each year of the planning period can be prepared for each strategic option being considered.

Projected financial statements are usually prepared for internal purposes only. Managers are usually reluctant to share this information with those outside the business. Managers usually feel that, the publication of projected information could damage the competitive position of the business.

Can you think of any circumstances under which managers might be prepared to provide projected financial information to those outside the business?

3. Managers will often be prepared to provide projected financial statements when trying to raise finance for the business. Prospective lenders may require projected financial statements before considering a loan application.
4. Projected financial statements may also be published if the managers feel the business is under threat. For example, a company which is the subject of a takeover bid, to which managers are opposed, may publish projected financial statements in order to give its shareholders, confidence in the future of the company.

Review Questions

1. Explain what projected financial statement means and why managers must show the financial implications of certain decisions

2. Discuss any circumstances under which managers might be prepared to provide projected financial information to those outside the business

Section 3

Objectives

At the end of this section, you should be able to

- Forecast the future level of sales
- Identify the factors that affect the future level of sales
- Explain ways in which the sales projections, or forecasts of a business may be developed

PREPARING PROJECTED FINANCIAL STATEMENTS

To prepare projected financial statements, forecasts must be made of sales, costs and the required investment in net assets over the planning period. Only when we have this information can we begin to prepare the statements.

FORECASTING SALES

For most business, the starting point for preparing projected statements will be the forecast for sales. The ability to sell the goods or service produced will normally be the key factor which decides the overall level of activity for the business. A reliable sales projection is therefore very essential as many other items including certain costs, stock levels, fixed assets and financing requirements will be determined partially or completely by the level of sales for the period.

Forecasting the future level of sales is often a difficult task. Future sales could be influenced be the following factors.

(a) the degree of competition
(b) planned expenditure on advertising
(c) quality of the product or service
(d) general state of the economy
(e) **changes in consumer tastes**

Some of these factors will be under the control of the business, but others will not. In practice, the sales projections, or forecasts of a business may be developed in a number of ways.

1. They may be developed by simply aggregating the projections made by the sales force or regional sales managers. These projections will usually attempt to take into account the various aspects of the market and likely changes in market conditions, but in doing so may rely heavily on the use of subjective judgement.

The use of market research techniques is preferred especially during the launch of a new product or service.

2. Sales projections may also be based on statistical techniques, or in the case of large businesses, economic models. These techniques are usually complex and may incorporate a number of variables and the relationships between these variables may be complex.

Review Questions

1. Explain the factors that affect the future level of sales
2. Explain ways in which the sales projections, or forecasts of a business may be developed

Section 4

Objectives

By the end of the section , you should be able to

- Identify costs that are likely to vary with level of sales(variable costs)
- Identify costs that are likely to stay constant (fixed costs)
- Identify costs that have both a variable and a fixed element

FORECASTING COSTS

As mentioned earlier, a reliable sales projection is essential, as many other items, including certain costs, will be determined by the level of sales. However not all costs relating to a business will vary with the level of sales.

COSTS LIKELY TO VARY WITH LEVEL OF SALES (VARIABLE COSTS)

1. Cost of sales

2. Materials consumed

3. Sales force commission

COSTS LIKELY TO STAY CONSTANT (FIXED COSTS)

3. Depreciation
4. rent
5. rates
6. insurance
7. salaries

These may stay fixed for a period.

SEMI-VARIABLE OR SEMI FIXED COSTS

Some costs have both a variable and a fixed element so may vary partially with sales output. They are referred to as semi-variable / semi fixed costs. Such costs may be identified for instance by examining

past records of the business. Heat and light cost may be an example. A certain amount of heating and lighting will be incurred irrespective of the level of sales. However, if overtime is being worked due to increased demand, this cost will increase.

Review Questions

1. Differentiate between variable costs and fixed costs.
2. Identify costs that have both a variable and a fixed element

Section 5

Objectives

By the end of the section, you should be able to

- identify balance sheet items which will increase as a result of an increase in the level of sales
- explain the per-cent of sales method
- discuss other forecasting issues

FORECASTING BALANCE SHEET ITEMS

The level of activity will also have an effect on certain items appearing in the balance sheet. A number of items appearing on the balance sheet of a business are likely to increase 'spontaneously' with an increase in the level of sales.

BALANCE SHEET ITEMS WHICH WILL INCREASE AS A RESULT OF AN INCREASE IN THE LEVEL OF SALES

An increase in the level of sales should lead to an increase in the level of current assets. A business is likely to need;

(a) more cash to meet increased cost incurred
(b) higher levels of trade debtors as a result of higher sales
(c) higher levels of stock to meet the increase in demand.

AN INCREASE IN THE LEVEL OF SALES SHOULD ALSO LEAD TO AN INCREASE IN THE LEVEL OF CURRENT LIABILITIES. A BUSINESS IS LIKELY TO INCUR:

(a) more trade creditors as a result of increased purchases
(b) more accrued expenses as a result of increased overhead costs

The business may also require an increase in fixed assets to meet the increase in the level of output

It may well be that the effect of an increase in the balance sheet items identified results in a requirement for further financing.

An approach that can be used to forecast certain balance sheet items is the **per-cent of sales method**. As the name suggests, this method expresses those elements that are connected to the level of sales as a percentage of the sales for the period. To apply this method, managers must examine past records to see which balance sheet items vary in proportion to the level of sales.

However, other more sophisticated methods involving statistical analysis can be employed if they are found to be more appropriate.

OTHER FORECASTING ISSUES

When preparing forecasts, changes in government policy and changes in the economic environment must be carefully considered. In particular, estimates of the following must be made:

(a) the rate of corporation tax
(b) interest rates for borrowing
(c) the rate of inflation.

There is usually a great deal of published historical and forecast data to help in preparing such estimates.

THE POLICIES AND EXISTING COMMITMENTS OF THE BUSINESS MUST ALSO BE CONSIDERED WHEN PREPARING THE PROJECTED STATEMENTS. THESE MAY RELATE TO SUCH MATTERS AS:

(a) capital expenditure
(b) financing methods
(c) depreciation methods and rates
(d) dividend payments.

Determining the rate of preference dividends is not a problem as usually the rate is specified. For ordinary shares however, this rate is determined by managers and also relies on level of profits.

Review Questions

1. Identify balance sheet items which will increase as a result of an increase in the level of sales
2. Explain the per-cent of sales method

Section 6

Objectives

By the end of the section, you should be able to

- explain the importance or usefulness of a projected cash flow statement
- identify the main sources of cash inflow and cash outflow
- explain the two questions we must ask concerning each item of information presented when preparing a cash flow statement

PROJECTED CASHFLOW STATEMENT

A projected cashflow statement is useful because it helps to identify changes in the liquidity of a business over time. Cash has been described as the 'life-blood' of a business, it is vital for a business to have sufficient liquid resources to meet its maturing obligations. Failure to maintain an adequate level of liquidity can have disastrous consequences for the business.

The projected cash flow statement helps to assess the impact of expected future events on the cash balance. It will identify periods where there are cash surpluses and cash deficits and will allow managers to plan for these occurrences. Where there is a cash surplus, managers should consider the profitable investment of the cash. Where there is a cash deficit, managers should consider the ways in which this can be financed.

The cash flow statement simply records the cash in flows and out flows of the business. The main sources of cash in flow are:

(a) cash sales
(b) trade debtors
(c) other income
(d) loan capital issued
(e) share capital issued
(f) sale of fixed assets

In practice, the main inflows will often be the cash from sales (cash sales and trade debtors) and financing (shares and loan capital issued). The main outflow will often be operating cost (purchases and overheads) and investment in asset.

There is no set format for the projected cash flow statement as it is normally used for internal purposes only. Management is free to decide on the form of presentation which best suits their needs. Below is an outline cash flow statement (projected) for a six month period (January – June).

	Jan	Feb	Mar	Apr	May	Jun
Cash inflow						
Issue of share						
Credit sales						
	…….	…….	……	…….	…….	…….
Cash out flows						
Credit costs						
Rent and rates						
Fittings	…….	……	……	……	…….	……..
Net cash flow						
Opening balance						
Closing balance ……	…….					

You can see from this outline that:

(a) each column represents a monthly period
(b) at the top of each column, the cash in flow and out flows are set out and a monthly total for these is also shown.
(c) The difference between the monthly totals of cash in flows and out flows is the net cash flow for the month

When preparing a cash flow statement, there are two questions we must ask concerning each item of information presented to us. The first question is:

(a) Does the item of information concern a cash transaction.(i.e. does it involve cash inflows or outflows)? If the answer to this question is 'no' then the information should be ignored for the purposes of preparing this statement. If the answer to the above question is 'yes' then a second question must be asked, that question is
(b) When did the cash transaction take place? It is important to identify the particular month in which the cash movement takes place. Often, the movement will occur after the period in which a particular transaction has been agreed, for example, where sales and purchases are made on credit. Problems in preparing cash flow statements usually arise because these two questions have not

been properly addressed. It is worth emphasizing that, the format used above is for internal reporting purposes only. When a (historic) cash flow statement is prepared for external reporting purposes, we provide a summary of the cash flows for the year rather than a monthly breakdown of cash flows.

Review Questions

- Explain the importance or usefulness of a projected cash flow statement
- Identify the main sources of cash inflow and cash outflow

Section 7

Objectives

By the end of the section, you should be able to

- explain the purpose of a projected profit and loss account
- know when revenue is realized
- know when expenses must be shown in the projected profit and loss account

PROJECTED PROFIT AND LOSS ACCOUNT

A projected profit and loss account helps provide an insight into the expected level of future profits. When preparing the projected profit and loss account, it is important to include all revenues which are realized (i.e. achieved) within the period. Normally, revenue is realized when the goods are passed to, and accepted by a customer. Where sales are on credit, this will occur before the cash is actually received. For this particular statement, the timing of the cash inflows from credit sales is not relevant.

All expenses (including non-cash items such as depreciation) which relate to the revenues realized in the period must be shown in the profit and loss account in which the sales appear. The timing of the cash outflows for expenses is also irrelevant.

Review Questions

1. Explain the purpose of a projected profit and loss account
2. Explain when revenue is realized and when expenses must be shown in the projected profit and loss account

Section 7

Objectives

By the end of the section, you should be able to

- **explain what the projected balance sheet is**

PROJECTED BALANCE SHEET

The projected balance sheet reveals the end-of-period balances for assets, liabilities and capital and should normally be the last of the three statements to be prepared. This is because, the previous statements prepared will provide information to be used when preparing the projected balance sheet.

The projected cash flow statement reveals the end-of-period cash balance for inclusion under 'current assets' (or where there is a negative balance, for inclusion under 'creditors: amounts due within one year).

The projected profit and loss account reveals the projected profit (loss) for the period for inclusion under the 'share capital and reserves' section of the balance sheet.

Review Question

1. Explain the Projected Balance Sheet

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Section 8

Objectives

By the end of this section , you should be able to

- identify questions that mangers must ask for critical examination of the projected financial statements
- explain why mangers should critically examine the projected financial statements

PROJECTED FINANCIAL STATEMENTS AND DECISION MAKING

The projected financial statements, once prepared, should be critically examined by managers. There is a danger that the figures contained within the statements will be too readily accepted by those without a financial background. Managers must ask questions such as:

(a) How reliable are the projections which have been made?
(b) What underlying assumptions have been made and are they valid?
(c) Have all relevant items been included?

Only when managers have received satisfactory answers to these questions should they use the statements for decision making purposes.

Managers must also find answers to a variety of questions including:

(a) Are the cash flows satisfactory? Can they be improved by changing policies or plans (e.g. delaying capital expenditure decisions, requiring debtors to pay more quickly etc)
(b) Is there a need for additional financing? Is it feasible to obtain the amount required?
(c) Can any surplus funds be profitably reinvested?
(d) Are the sales and individual expense items at a satisfactory level?
(e) Is the level of borrowing acceptable?
(f) Is the financial position at the end of the period acceptable?

Review Questions

1. Identify questions that mangers must ask for critical examination of the projected financial statements
2. Explain why mangers should critically examine the projected financial statements

Section 9

Objectives

By the end of the section, you should be able to

- Explain what risk is
- Explain methods available to help managers deal with uncertainty

PROJECTED FINANCIAL STATEMENTS AND RISK

When making estimates concerning the future, there is always a chance that things will not turn out as expected. The likelihood that what is estimated to occur will not actually occur is referred to as **risk**.

In practice, there are various methods available to help managers deal with uncertainty concerning the figures contained within the projected financial statements.

SENSITIVITY ANALYSIS

This is a useful tool to employ when evaluating the contents of a projected financial statement. The technique involves taking a single variable (e.g. volume of sales) and examining the effect of changes in the chosen variable on the likely performance and position of the business. By examining the shifts which occur, it is possible to arrive at some assessment of how sensitive changes are for the projected outcomes. Although only one variable is examined at a time, a number of variables, considered to be important to the performance of a business may be examined consecutively.

One form of sensitivity analysis is to pose series of 'what if?' Questions. If we take sales for example we might ask the following 'what if'? Questions.

(a) what if sales volume is 5 percent higher than expected
(b) what if sales volume is 10 percent lower than expected
(c) what if sales price is reduced by 15 percent?
(d) What if sales price could be increase by 20 percent?

In answering these questions, it is possible to develop a better 'feel' for the effect of forecast inaccuracies on the final outcomes.

SCENARIO ANALYSIS

Another approach to help managers gain a feel for the effect of forecast inaccuracies is to prepare projected financial statements according to different possible 'states of the world'. For example, managers may wish to examine projected financial statements prepared on the following basis.

a. an optimistic view of likely future events
b. a pessimistic view of likely future events
c. a 'most likely' view of future events.

This approach is known as **scenario analysis** and, unlike sensitivity analysis, it will involve changing a number of variables simultaneously in order to portray a possible 'state of the world'.

Review Questions

1. Explain risk
2. Explain methods available to help managers deal with uncertainty

UNIT 4

FINANCIAL STATEMENT ANALYSIS AND INTERPRETATION

A wide range of individuals and organizations have financial and other links with companies. In our first lecture, we identified a number of stakeholder groups such as employees, customers, suppliers and the community. These stakeholder groups have their own specific interests which may sometimes conflict. However, in one way or another, they are all concerned with the performance of the company, its continuing existence, and its ability to provide them with a positive return in some form, most usually cash.

Ideally, each of these user groups would like information about the past performance of the entity, about its current state of affairs and, perhaps most importantly, about its future – with all this information being directed to their specific concerns. In practice, with some exceptions, they have to make do with general purpose information and information about the future which can be gotten by calculating ratios from financial reports and using them to forecast.

In this section we will see how financial ratios can help in analyzing and interpreting financial information. We will also consider problems which are encountered when applying this technique. Financial ratios can be used to examine various aspects of financial position and performance and are widely used for planning, control and evaluation purposes. They can be used to evaluate the financial health of a business and can be utilised by management in a wide variety of decisions involving such areas as profit planning, pricing, working capital management, financial structure and dividend policy.

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Section 1

Objectives

By the end of the section, you should be able to

- Explain basic financial statements
- Review the various financial statements

Basic financial statements

The **balance sheet** is a snapshot of the firm's assets and liabilities at a given point in time. There are a number of ways of presenting financial statements. One is to list the assets, followed by liabilities and then owner's equity. Another is to list assets on the left hand side and liabilities and owners equity on the right hand side.

In this second form assets are listed in order of liquidity for ease of conversion to cash without significant loss of value. On the right hand side, liabilities are listed with those due sooner first. Shareholders equity is listed last. For our purposes, this second presentation is more convenient.

Recall the **Balance sheet identity**

- Assets = Liabilities + Shareholders equity

From the balance sheet, the following may be deduced:

Net working capital of the firm: derived from the balance sheet and measures the liquidity of the firm

Definition: current assets – current liabilities;

This is positive when the cash expected to be received over the next 12 months exceeds the cash that will be paid out, suggesting that the firm is liquid.

Usually, a positive net working capital is viewed as a healthy firm.

Liquidity of the firm is defined as the ability to convert assets to cash quickly without a significant loss in value. Liquid firms are less likely to experience financial distress.

However, liquid assets earn a lower return. Let us suppose that because you want to stay liquid you convert all your current assets into cash in a checking account; your fixed assets

cannot be readily converted to cash, and these are the main equipment that you need to stay in business;

When that happens firms are faced with the trade-off between liquid and illiquid assets.

The **balance sheet** provides the **book value** of the assets, liabilities and equity of the firm.

The **market value** is the price at which the assets, liabilities or equity can actually be bought or sold in the market place.

The **profit and loss statement** is more like a video of the firms operations for a specified period of time.

In general, revenues are reported first and then expenses for the period are deducted.

In constructing the profit and loss statement, the principles of matching revenues and the expenses required to generate the revenue should be adopted.

The **cash flow statement** is one of the most important pieces of information that a financial manager can derive from financial statements. The cash flow statement indicates to the financial manager how cash is generated from utilizing assets and how it is paid to those that finance the purchase of the assets. It will also indicate funds that may have been sourced externally.

Cash Flow From Assets = Operating Cash Flow – Net Capital Spending - Changes in Net Working Capital.

Review Questions

1. Explain basic financial statements
2. Review the various financial statements

Section 2

Objectives

At the end of the section, you should be able to

- Discuss the groups that have interest in the interpretation of accounting statements
- Identify the accounting ratios that they will be interested in

Interested parties or groups

1. **Management**

   Management is in charge of the overall running of the firm. It has been entrusted with the resources of the owners and other shareholders, and they must ensure that such resources are put to good and maximum use. They must ensure that the firm makes profit that will allow payment of adequate rewards to the owners in compensation for their investments. Management must ensure growth in the firm from year to year and they must also ensure that enough funds are available to allow payment to creditors when debts fall due.

   Management will therefore be interested in the various accounting ratios including profitability, efficiency, liquidity and solvency.

2. **Shareholders**

   Shareholders are the owners of the company. They have invested resources into the company and would expect to receive adequate rewards in the form of dividends. They would be interested in the growth and survival of the business. Thus, they will also be interested in the activity ratios, capital structure and investment ratios.

3. **Trade creditors**

   These are the people the business owes for trade supplies. They are mainly concerned with receiving their monies as and when they fall due. Their interest lies in the liquidity position and survival of the firm since this will allow them to continue trading with the firm.

4. **Debenture holders and other loan creditors**
   These are parties that have lent their monies to the firm. Their interest will lie in the ability of the firm to repay the principal and interest on the loan when it falls due. The solvency and liquidity of the firm will be of interest to them.

5. **Bankers**
   They grant financial assistance to businesses in the form of loans, overdrafts etc. they will be interested in the ability of the firm to repay the facility (principal and interest) and the assets of the company to secure the facility. The liquidity, profitability, efficiency and solvency ratios will be of interest to them.

6. **Government**
   The government is interested in the social obligation and responsibility of the company. Production must be economically efficient and the products must be beneficial to society and be environmentally friendly. They will be interested in the expansion of the company to employ more workers and employees and the company's ability to meet its staff social security and tax obligations

7. **Employees and trade unions**
   Trade unions are employees associations seeking the welfare of their members. They are interested in their wages and salaries and other compensations. They are also interested in the continued survival of the company to provide them with employment. They will be unemployed if the company goes into liquidation. They will be looking at the profitability and solvency of the company.

8. **Tax authorities**
   They are responsible for the tax collection and administration on behalf of the government. Their interest lies in the profitability of the business for tax purposes.

9. **Potential investors**
   These are parties who are likely to invest in the business. They will only invest in the business if they are sure that they can make adequate returns on their investments over and above their cost of capital. They will be interested in the size of the company i.e. the company's assets, and the return on investments ratios.

10. Potential takeover bidders

These are parties interested in taking over or acquiring the firm. Their interest lies in the net value of goodwill that will enable them make more profit if they take-over. They will be interested in the return on investment ratios.

Review Questions

1. Discuss the groups that have interest in the interpretation of accounting statements
2. Which accounting ratios are Management interested in

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

Section 3

Objectives

By the end of the section, you should be able to

- Explain financial ratios
- Discuss financial ratio classification
- Discuss the need for comparison of ratios

FINANCIAL RATIOS

Financial ratios provide a quick and relatively simple means of examining the financial condition of a business. A ratio simply expresses the relation of one figure appearing in the financial statements to some other figure appearing there (for example, net profit in relation to capital employed) or perhaps some resource of the business (for example net profit per employee).

Ratios can be very helpful when comparing the financial health of different businesses. Differences may exist between businesses in the scale of operations, and so a direct comparison of say the profits generated by each business may be misleading. By expressing profit in relation to some other measure (for example sales), the problem of scale is eliminated, A business with a profit of, say, Gh¢10,000 and a sales turnover of Gh¢100,000 can be compared with a much larger business with a profit of say, Gh¢80,000 and a sales turnover of Gh¢1,000,000 by the use of a simple ratio.

There is no generally accepted list of ratios which can be applied to company financial statements, nor is there a standard method of calculating many ratios. Variations in both the choice of ratios and their precise definition will be found in literature and in practice. However, it is important to be consistent in the way in which ratios are calculated for comparison purposes. The ratios discussed in this section are those that many consider to be among the more important for decision making purposes.

FINANCIAL RATIO CLASSIFICATION

Ratios can be grouped into certain categories, each of which reflect a particular aspect of financial performance or position. The following broad categories provide a useful basis for explaining the nature of the financial ratios to be dealt with.

(a) Profitability: - Business come into being with the primary purpose of creating wealth for the owners. Profitability ratios provide an insight into the degree of success of the

owners in achieving this purpose. They express the profits made in relation to other key figures in the financial statements or to some business resource.

(b) Efficiency: - Ratios may be used to measure the efficiency with which certain resources have been utilised within the business. These ratios are also referred to as activity ratios.

(c) Liquidity: - This is very vital to the survival of a business in the sense that there has to be sufficient liquid resources to meet maturing obligations. Certain ratios may be calculated which examine the relationship between liquid resources held and creditors due for payment in the near future.

(d) Gearing: - Gearing is an important issue which managers must consider when making financial decisions. The relationship between the amount financed by the owners of the business and the amount contributed by outsiders has an important effect on the degree of risk associated with a business.

(e) Investment: - Certain ratios are concerned with assessing the returns and performance of shares held in a particular business.

The need for comparison

Calculating a ratio will not by itself tell you very much about the position or performance of a business. It is only when you compare this ratio with some bench mark that the information can be interpreted and evaluated.

Bases for Comparison

(1) **Past Periods –** By comparing the ratio you have calculated with the ratio of a previous period, it is possible to detect whether there has been an improvement or deterioration in performance.

(2) **Planned Performance –** Ratios may be compared with the targets which management developed before the commencement of the period under review. The comparison of planned performance with actual performance may therefore be a useful way of revealing the level of achievement attained.

(3) **Similar Businesses –** In a competitive environment, a business must consider its performance in relation to those of other businesses operating in the same industry. Survival may depend on the ability to achieve comparable levels of performance. This is a useful basis for comparing a particular ratio achieved by similar businesses during the same period.

Review Questions

1. Explain what financial ratios are
2. Discuss financial ratio classification
3. Discuss the need for comparison of ratios

Section 4

Objectives

By the end of the section, you should be able to

- Explain the key steps in financial ratio analysis
- Calculate important ratios for determining the financial performance and position of a business and explain the significance of the ratios calculated
- Discuss the limitations of ratios as a tool of financial analysis

KEY STEPS IN FINANCIAL RATIO ANALYSIS

(1) The first step involves identifying the key indicators and relationships which require examination. In order to carry out this step, the analyst must be clear who the target users are and why they need the information. Different types of information users are likely to have different information needs, which will, in turn, determine the ratios which they find useful.

(2) The next step is to calculate the appropriate ratios for the particular users and the purpose for which they require the information.

(3) The final step is the interpretation and evaluation of the ratios. Interpretation involves examining the ratios with an appropriate basis for comparison and other information which may be relevant. The significance of the ratios calculated can then be established. Evaluation involves forming a judgment concerning the value of the information uncovered in the calculation and interpretation of the ratios.

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

The following financial statements relate to Benceci plc, which is a small company which manufactures carpets.

Balance Sheets as at 31 March

		2008		2009
	GH¢000	GH¢000	GH¢000	GH¢000
Fixed assets				
Freehold land and buildings at cost	451.2		451.2	
Less accumulated depreciation	70.0	381.2	75.0	376.2
Fixtures and fittings at cost	129.0		160.4	
Less accumulated depreciation	64.4	64.6	97.2	63.2
		445.8		439.4
Current assets				
Stock at cost	300.0		370.8	
Trade debtors	240.8		210.2	
Bank	3.4		3.0	
	544.2		584.0	
Creditors due within one year				
Trade creditors	(221.4)		(228.8)	
Dividends proposed	(40.2)		(60.0)	
Corporation tax due	(30.1)		(38.0)	
	291.7	252.5	326.8	257.2
		698.3		696.6
Creditors due beyond one year				
12% debentures (secured)		200.0		60.0
		498.3		636.6
Capital and reserves				
GH¢0.50 ordinary shares		300.0		334.1
General reserve		26.5		40.0
Retained profit		171.8		262.5
		498.3		636.6

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

Profit and loss accounts for the year ended 31 March

		2008		2009
	GH¢000	GH¢000	GH¢000	GH¢000
Sales		2,240.8		2,681.2
Less Cost of Sales				
Opening stock	241.0		300.0	
Purchases	1,804.4		2,142.8	
	2,045.4		2,442.8	
Less closing stock	300.0	1,745.4	370.8	2,072.0
Gross profit		495.4		609.2
Wages and salaries	137.8		195.0	
Directors' salaries	48.0		80.6	
Rates	12.2		12.4	
Heat and light	8.4		13.6	
Insurance	4.6		7.0	
Postage and telephone	3.4		7.4	
Audit fees	5.6		9.0	
Depreciation:				
Freehold buildings	5.0		5.0	
Fixtures and fittings	27.0	252.0	32.8	362.8
Net profit before interest and tax		243.4		246.4
Less interest payable		24.0		6.2
Net profit before tax		219.4		240.2
Less corporation tax		60.2		76.0
Net profit after tax		159.2		164.2
Add Retained profit brought forward		52.8		171.8
		212.0		336.0
Less Transfer to general reserve		-		(13.5)
Dividends proposed		(40.2)		(60.0)
Retained profit carried forward		171.8		262.5

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

Cash flow statement for the ended 31 March

		2008		2009
	GH¢000	GH¢000	GH¢000	GH¢000
Net cash inflow form operating activities		**231.0**		**251.4**
Returns on investments and servicing of finance				
Interest paid	(24.0)		(6.2)	
Net cash inflow (outflow) from returns on investments and servicing of finance		(24.0)		(6.2)
Taxation				
Corporation tax paid	(46.4)		(68.1)	
Tax paid		(46.4)		(68.1)
Capital expenditure				
Purchase of fixed assets	(121.2)		(31.4)	
Net cash inflow (outflow) from capital Expenditure		(121.2)		(31.4)
Equity dividends				
Dividend on ordinary shares	(32.0)		(40.2)	
Net cash outflow for equity dividends		(32.0)		(40.2)
Management of liquid resources Financing		-		-
Issue of ordinary shares	20.0		34.1	
Repayment of loan capital	-	20.0	(140.0)	(105.9)
Increase (decrease) in cash and cash Equivalents	27.4			0.4
Equivalents		27.4		0.4

Additional notes

The company has employed 14 staff in 2008 and 18 in 2009. All sales and purchases are made on credit. The market value of the shares of the company at the end of each year was GH¢2.50 and GH¢3.50 respectively. The issue of equity (ordinary) shares during the year ended 31 March 2009 occurred at the beginning of the year.

THE RATIOS CALCULATED

Profitability

The following ratios may be used to evaluate the profitability of the businesses.

(a) Return on ordinary shareholders funds (ROSF);
The ROSF compares the amount of profit for the period available to the ordinary shareholders, with the ordinary shareholders stake in the business. The ratio which is normally expressed in percentage terms is as follows:

$$\text{ROSF} = \frac{\text{Net profit after taxation and preference dividend (if any)}}{\text{Ordinary share capital plus reserves}} \times 100$$

The net profit after taxation and after any preference dividend is used in calculating the ratio as this residual figure represents the amount of profit available to ordinary shareholders.

In the case of Alexis Plc, the ROSF ratio for the year ended 31 March 2008 is:

$$\text{ROSF} = \frac{\text{Gh¢ 159.2}}{\text{Gh¢ 498.3}} \times 100$$

$$= 31.9\%$$

For the year ended, 31st March 2009

$$\text{ROSF} = \frac{\text{Gh¢ 164.2}}{\text{Gh¢ 636.6}} \times 100$$

$$= 25.8\%$$

RETURN ON CAPITAL EMPLOYED (ROCE)

The ROCE is a fundamental measure of business performance. This ratio expresses the relationship between the net profit generated by the business and the long term capital invested in the business. The ROCE is expressed in percentage terms as follows:

$$\text{ROCE} = \frac{\text{Net Profit before Interest and Taxation}}{\text{Share capital + Reserves + Long term loans}}$$

Net profit before interest and taxation is used because the ratio attempts to measure the returns to all suppliers of long term finance before any deduction for interest payable to lenders or payments of dividends to share holders are made.

For the year ending 31 March 2008, the ROCE for Benceci Plc is:

$$\text{ROCE} = \frac{\text{Gh243. 4}}{\text{Gh¢ 698.3}} \times 100 = 34.90\%$$

For 31 March 2009 ROCE

= Gh¢ 246.8 x 100
Gh¢ 696.6 = 35.4%

ROCE is considered by many to be a primary measure of profitability. It compares inputs (capital invested) with outputs (profit). This comparison is of vital importance in assessing the effectiveness with which funds have been deployed.

Although ROSF and ROCE measure returns on capital invested, ROSF is concerned with measuring the returns achieved by ordinary shareholders, whereas ROCE is concerned with measuring returns achieved from all the long term capital invested.

Net Profit Margin

The net profit margin relates the net profit for the period to the sales during that period. The ratio is expressed as:

Net Profit Margin = Net Profit before Interest and Taxation / Sales x 100

The net profit before interest and taxation is used in this ratio as it represents the profits from trading operations before any costs of servicing long term finance are taken into account. This is often regarded as the most appropriate measure of operational performance for comparison purposes as differences arising from the way in which a particular business is financed will not influence this measure. However this is not the only way in which this ratio may be calculated. In practice the net profit after taxation is also used, on occasions, as the numerator. The purpose for which the ratio is required will determine which form of calculation is appropriate.

The ratio compares one output of the business (profit) with another output (sales). The ratio can vary considerably between types of businesses. For example a supermarket will often operate on low profit margins but have a much lower level of sales volume. Factors such as the degree of competition, the type of customer, the economic climate and industry characteristics (such as the level of risk) will influence the net profit margin of a business.

The net Profit margin of Benceci Plc (based on the net profit before interest and taxation) for the year ended 31 March 2008 is:

Net Profit Margin = Gh¢ 243.4 / Gh¢ 2,240.8 x 100

= 10.9%

For the year ended 31 March 2009

Net Profit Margin = Gh¢ 246.4 / Gh¢ 2,681.2 x 100 = 9.2%

GROSS PROFIT MARGIN

The gross profit relates the gross profit of the business to the sales generated for the same period. Gross profit represents the difference between sales and cost of sales. The ratio is therefore a measure of profitability in buying (or producing) and selling goods before any other expenses are taken into account. As cost of sales represents a major expense for retailing and manufacturing businesses, a change in this ratio can have a significant effect on the 'bottom line' (that is the net profit for the year). The gross profit margin is calculated as follows:

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

For the year to 31 March 2008, the ratio for Benceci Plc is:

$$\text{Gross Profit Margin} = \frac{\text{Gh¢ 495.4}}{\text{Gh¢ 2,240.8}} \times 100$$

$$= 22.1\%$$

Gross Profit Margin for the year to 31 March 2009 is:

$$\text{Gross Profit Margin} = \frac{\text{Gh¢ 609.2}}{\text{Gh¢ 2,681.2}} \times 100$$

$$= 22.7\%$$

The profitability ratios for Benceci Plc can be set out as follows:

	2008	2009
ROSF	31.9%	25.8%
ROCE	34.9%	35.3%
Net Profit Margin	10.9%	9.2. %
Gross Profit margin	22.1%	22.7%

COMPARISON OF THE RATIOS OF ALEXIS Plc

The gross profit margin shows a slight increase in 2009 over the previous year. This may be for a number of reasons such as an increase in selling prices and a decrease in the cost of sales. However, the net profit margin has shown a slight decline over the period. This means that operating expenses (wages, rate, insurance and so on) are absorbing a greater proportion of sales income in 2009 than in the previous year.

EFFICIENCY RATIOS

Efficiency ratios examine the ways in which various resources of the business are managed. The following ratios consider some of the important aspects of resource management.

AVERAGE STOCK TURNOVER PERIOD

Stocks represent a significant investment for a business. For some types of businesses for example manufacturers), stocks may account for a substantial proportion of the total assets held. The average stock turnover period measures the average number of days for which stocks are being held. The average stock for the period can be calculated as a simple average of the opening and closing stock levels for the year. However, in the case of a highly seasonal business where stock levels may vary considerably over the year, a monthly average may be more appropriate.

In the case of Benceci Plc, the stock turnover period for the year ended 31 March 2008 is:

Stock Turnover Period

$$= \frac{\text{Average Stock Held}}{\text{Cost of sales}} \times 365 \text{ days.}$$

$$= \frac{\text{Gh¢ } (241 + 300)/2}{\text{Gh¢1745.4}} \times 365 \text{ days}$$

= 57 days (to nearest day),

This means that, on average the stock held is being 'turned over' every 57 days. A business will normally prefer a low stock turnover period to a high period as funds tied up in stocks cannot be used for other profitable purposes.

The average stock turnover period for Benceci Plc for the year to 31 March 2009 is:

$$\text{Stock Turnover Period} = \frac{\text{Gh¢ } (300 + 370.8)/2}{\text{Gh¢ 2, 072}} \times 360$$

= 59 days

Average Settlement Period for Debtors (Debtor Days)

A business will usually be concerned with how long it takes for customers to pay the amounts owing. The speed of payment can have a significant effect on the cashflows for the business. The average settlement period for debtors calculates how long, on average, credit customers take to pay the amounts which they owe to the business.

A business will normally prefer a shorter average settlement period than a longer one as, once again funds are being tied up which may be used for more profitable purposes. The ratio is as follows:

$$\text{Debtor Days} = \frac{\text{Trade Debtors}}{\text{Credit sales}} \times 365 \text{ days}$$

We are told that all sales made by Benceci Plc are on credit and so the average settlement period for debtors for the year ended 31 March 2008 is:

Debtor Days $\frac{\text{Gh¢ 240.8}}{\text{Gh¢ 2240.8}} \times 365$

= 39 Days

Average settlement period for debtors for the year to 2009 is

Average settlement $\frac{\text{Gh¢ 210.2}}{\text{Gh¢ 2681.2}} \times 365$

= 29 Days

Average Settlement Period for Creditors (creditor Days)

The average settlement Period for creditors tells us how long, on average the business takes to pay its trade creditors. As trade creditors provide a free source of finance for the business, it is perhaps not surprising that some businesses attempt to increase their average settlement period for trade creditors. However such a policy can be taken too far and can result in a loss of goodwill by suppliers. The ratio is calculated as follows:

$$\text{Creditor Days} = \frac{\textbf{Trade Creditors}}{\text{Credit Purchases}} \times 365 \text{ days}$$

Trade Creditors for the year ended 31 March 2008 is as follows:

Creditor Days = $\frac{\text{Gh¢ 221.5}}{\text{Gh¢ 1804.4}} \times 365$ Days

= 45Days

For the year ended 31 March 2009:

Creditor Days = $\frac{\text{Gh¢ 228.8}}{\text{Gh¢ 2142.8}} \times 365$ Days

= 39 Days

SALES TO CAPITAL EMPLOYED RATIO

The sales to capital employed Ratio examines how effective the long – term capital employed of the business has been, in generating sales revenue. The long term capital employed here is shareholders funds plus long term loans.

Generally speaking, a higher sales to capital employed ratio is preferred to a lower one. A higher ratio will normally suggest that the capital (as represented by total assets less current liabilities) is being used more productively in the generation of revenue. However a very

high ratio may suggest that the business is undercapitalized, that is, it has insufficient long term capital to support the level of sales achieved. The ratio is calculated as follows:

Sales to capital Employed ratio = sales / long term capital employed
(that is, shareholders' funds + long term loans)

The ratio for Benceci in 2008 is:
Sales to capital employed

= Gh¢ 2,240.8 / Gh¢ (498.3+200.0)

= 3.2 times

For 2009, the ratio is:

Sales to capital Employed = Gh¢ 2,681.2 / Gh¢ (636.6+60.0)

= 3.8 times

SALES PER EMPLOYEE

The sales per employee ratio relate sales generated to a particular business resource. It provides a measure of the productivity of the workforce. The ratio is calculated as follows:

Sales Per employee = Sales / Number of employees

The ratio for Benceci Plc in 2008 is:

Sales per Employee = Gh¢ 2,240,800 / 14

= Gh¢ 160,057

For the year ended 31 March 2009, the ratio is:

Sales per Employee = Gh¢ 2, 681,200 / 18

= Gh¢148, 956

The efficiency ratios for Benceci Plc may be summarized as follows:

	2008	2009
Stock turnover Period	57 Days	59 Days
Average settlement	39 Days	29 Days

For Debtors		
Average settlement	45 days	39 Days
Period for Creditors		
Sales to capital employed	3.2 times	3.8 times
Sales Per employees	Gh¢160 057	Gh¢140,956

COMPARISON OF EFFICIENCY RATIOS FOR ALEXIS Plc

A comparison of the efficiency ratios between years provide a mixed picture. The average settlement period between debtors and creditors has reduced. The reduction may have been the result of deliberate policy decisions, for example tighter credit control for debtors, paying creditors promptly in order to maintain good will or to take advantage of discounts.

The stock turnover period has shown a slight decrease over the period but this may not be significant. Overall, there has been an increase in the sales to capital employed ratio which means that the sales have increased by a greater proportion than the capital employed of the business. Sales per employee, however, have declined and the reasons for this should be investigated.

LIQUIDITY RATIOS
CURRENT RATIO:-

The current ratio compares the liquid assets (cash and those assets held which will soon be turned into cash) of the business with current liabilities (creditors due within one year). The ratio is calculated as follows:

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities.}}$$

For the year ended 31 March 2008 the ratio is:

$$\text{Current ratio} = \frac{\text{Gh¢ 574.3}}{\text{Gh¢ 321.8}}$$

$$= 1.8 \text{ times}$$

For 2009 the ratio is:

$$\text{Current ratio} = \frac{\text{Gh¢ 622.0}}{\text{Gh¢ 364.8}}$$

$$= 1.7 \text{ times}$$

The ratio reveals that the current assets cover the current liabilities by 1.8 times. In some texts, the notion of an 'ideal current ratio (usually 2 times) is suggested for businesses. However this fails to take into account the fact that different types of businesses require different current ratios. For example, a manufacturing business will often have a relatively high current ratio because it is necessary to hold stocks of finished goods, raw materials and work-in progress. It will also normally sell goods on credit, thereby incurring debtors. A supermarket chain on the other hand will have a relatively low ratio as it will hold only fast moving stocks of finished goods and will generate mostly cash sales.

The higher the ratio, the more liquid the business is considered to be. As liquidity is vital to the survival of the business, a higher current ratio is normally preferred to a lower one.

ACID TEST RATIO

The acid test ratio represents a more stringent test of liquidity. It can be argued that, for many businesses, the stock in hand cannot be converted to cash quickly. (Note that in the case of Alexis Plc, the stock turnover period was more than 50 days in both years). As a result, it may be better to exclude this particular asset from any measure of liquidity. The acid test ratio is based on this idea and is calculated as follows:

$$\text{Acid test ratio} = \frac{\text{Current Assets (excluding stock)}}{\text{Current liabilities}}$$

The Acid test ratio for Benceci Plc for the year ended 2008 is as follows:

$$\text{Acid test ratio} = \frac{\text{Gh¢ (574.3-300)}}{\text{Gh¢ 321.8}}$$

$$= \text{0.9 times}$$

For 19x3, the Acid test ratio is;

$$\text{Acid test ratio} = \frac{\text{Gh¢ (622.0-370.8)}}{\text{Gh¢ 364.8}}$$

$$= \text{0.7 times}$$

We can see that the 'liquid' current assets do not quite cover the current liabilities and so the business may be experiencing some liquidity problems. In some types of businesses, however, where a pattern of strong positive cash flow exists, it is not unusual for the acid test ratio to be below 1.0 without causing liquidity problems.

The liquidity ratios for Benceci Plc over the two year period may be summarized as follows:

	2008	2009
Current ratio	1.8	1.7
Acid text ratio	0.9	0.7

COMPARISON OF LIQUIDITY RATIOS

A comparison of the two years reveals a decrease in both the current ratio and acid test ratio. These changes suggest a worsening liquidity position for the business. The business must monitor its liquidity carefully and be alert to any further deterioration in these ratios.

GEARING

Gearing occurs when a business is financed, at least in part, by contributions from outside parties. The level of gearing (that is the extent to which a business is financed by outside the parties) associated with a business is often an important factor in assessing risk. Where a business borrows heavily, it takes on a commitment to pay interest charges and make capital repayments. This can be a real financial burden and can increase the risk of a business becoming insolvent. Nevertheless, it is the case that most businesses are geared to a greater or lesser extent.

Gearing Ratio

The gearing ratio, measures the contribution of long-term lenders to the long term capital structure of a business. It is calculated as follows:

$$\text{Gearing Ratio} = \frac{\text{Long term liabilities}}{\text{share capital + reserves + Long term liabilities}}$$

The gearing ratio for Alexis Plc for the year ended 31 March 2008 is;

$$\text{Gearing ratio} = \frac{\text{Gh¢ 200}}{\text{Gh¢ (498.3+200)}} \times 100$$

$$= 28.6\%$$

Gearing Ratio for 2009:

$$= \frac{\text{Gh¢60}}{\text{Gh¢ (636.6+60)}} \times 100$$

$$= 8.6\%$$

This ratio reveals a substantive fall in the level of gearing over the year. The gearing ratio for 2008 reveals a level of gearing which would not normally be considered to be very high. However, in deciding on what an acceptable level of gearing might be, we should consider the likely future pattern and growth of profit and cashflows. A business which has profits and cashflows which are stable or growing is likely to feel more comfortable about taking on higher levels of gearing than a business which has a volatile pattern of cashflows and profit. This is because, the consequences on defaulting on payments of interest, or repayments of capital, are likely to be very serious for the business.

INTEREST COVER RATIO

The interest cover ratio measures the amount of profit available to cover interest payable. The ratio may be calculated as follows;

Interest Cover ratio =

$$\frac{\text{Profit before interest \& taxation}}{\text{Interest Payable}}$$

The ratio for Alexis Plc for the year ended 31 March 2008 is:

Interest Cover ratio = Gh¢ $\frac{(219.0+24)}{\text{Gh¢ } 24}$

= 10.1 times

The ratio shows that the level of profit is considerably higher than the level of interest payable. Thus, a significant fall in profits could occur before profit levels failed to cover interest payable.

The Interest cover ratio for 2009 is;
Interest Cover ratio

$$\frac{\text{Gh¢ } (240.2+6.2)}{\text{Gh¢ } 6.2}$$

= 39.7 times

Comparison of Gearing Ratios

	2008	2009
Gearing Ratio	28.6%	8.6%
Interest Cover Ratio	10.1 times	39.7 times

Both the gearing ratio and interest cover ratio have changed significantly in 2009. This is owing mainly to the fact that a substantial part of the long – term loan was repaid during 2009. This repayment had the effect of reducing the relative contribution of long-term lenders to the financing of the business and reducing the amount of interest payable.

INVESTMENT RATIOS

There are a number of ratios which are designed to help investors who hold shares in a company to assess the returns on their investment.

DIVIDEND PER SHARE

The dividend per share ratio relates the dividend announced during a period to the number of shares in issue during that period. The ratio is calculated as follows:

$$\text{Dividend Per share} = \frac{\text{Dividends announced during the Period}}{\text{No. of shares in Issue}}$$

In essence, the ratio provides an indication of cash return which an investor receives from holding shares in a company. Although it is a useful measure, it must always be remembered that the dividends received will usually only represent a partial measure of return to investors. The ploughed back profits also belong to the shareholders and should, in principle, increase the value of the shares held.

The ratio can be calculated for each class of share issued by a company. Benceci Plc has only ordinary shares in issue and therefore only one dividend per share ratio can be calculated.

Dividend per share for Benceci Plc for the year-ended 2008 is:

$$\text{Dividend Per share} = \frac{\text{Gh¢ } 40.2}{600 \text{ (i.e. Gh¢0.50 shares and Gh¢ 300 share capital)}}$$

$$= 0.067 = 6.7p$$

The dividend per share for 2009 is;

$$\text{Dividend per share} = \frac{\text{Gh¢ } 60.0}{668.2}$$

$$= 0.089 = 9.0p$$

Comparing dividend per share between companies is not always useful as there may be differences between the nominal value of shares issued. However, it is often useful to monitor the trend of dividends per share for a particular company over a period of time.

Dividend Payout Ratio

The dividend payout ratio measures the proportion of earnings which a company pays out to share holders in the form of dividends. The ratio is calculated as follows;

$$\text{Dividend Payout Ratio} = \frac{\text{Dividends Announced for the year}}{\text{Earnings for the year available for Dividends}} \times 100$$

In the case of ordinary (equity) shares, the earnings available for dividend will normally be the net profit after taxation and after any preference dividends announced during the period. The ratio is normally expressed as a percentage.

The dividend payout ratio for Benceci Plc in 2008 is;

$$\text{Dividend Payout ratio} = \frac{\text{Gh¢ } 40.2}{\text{Gh¢ } 159.2} \times 100$$

$$= 25.3\%$$

The ratio for 2009 is

Dividend Payout ratio = Gh¢60 / Gh¢ 164.2 x 100

= 36.5%

EARNINGS PER SHARE

The earnings per share of a company, relates the earnings generated by the company during a period and available to shareholders to the number of shares in issue. For ordinary shareholders, the amount available will be represented by net profit after tax (less any preference dividend where applicable). The ratio for ordinary shareholders is calculated as follows:

Earnings Per Share = Earnings Available to Ordinary Shareholders / No. of ordinary shares in issue

The EPS for Alexis Plc in 2008 is:

EPS = Gh¢159.2 / 600

= 26.5p

The EPS for Alexis plc in 2009 is:

EPS = Gh¢164.2 / 668.2

=24.6p

The ratio is regarded by many investment analysts as a fundamental measure of share performance. The trend in earnings per share overtime is used to help assess the investment potential of a company's shares.
It is not usually very helpful to compare the earnings per share of one company with another. Difference in capital structures can render any such comparison measure meaningless. However, like dividend per share, it can be very useful to monitor the changes which occur in this ratio for a particular company over time.

OPERATING CASH FLOW PER SHARE

It cans be argued that, in the short run at least, operating cashflow per share provides a better guide to the ability of a company to pay dividends and to undertake planned expenditures than the earnings per share figure. The operating cashflow (OCF) per ordinary share is calculated as follows:

OCF per ordinary = Operating Cash flows – Preference dividends (if any) / No. of ordinary shares in Issue

The OCF for Alexis Plc in 2008 is:

OCF per share = Gh¢ 231.0 / 600.0

= 38.5p

OCF per share in 2009 is;

OCF per share = Gh¢251.4 / 668.2

= 37.6p

There has been a slight decline in the ratio over the two-year period. Note that, for both years, the operating cashflow per share for Benceci Plc is higher than the earnings per share. This is not unusual. The effect of adding back depreciation in order to derive operating cashflows will often ensure a higher figure is derived.

PRICE/EARNINGS RATIO

The price/earnings ratio relates the market value of a share to the earnings per share. This ratio can be calculated as follows:

P/E ratio = Market Value per Share / Earnings per share

The Ratio = Gh¢2.50 / 26.5p

= 9.4 times

The P/E ratio for Benceci Plc in 2009 is

P/E ratio = Gh¢3.50 / 24.6

= 14.2 times

The ratio reveals that the capital value of the share in 2008 is 9.4 times higher than its current level of earnings. The ratio is in essence, a measure of market confidence concerning the future of a company. The higher the P/E ratio, the greater the confidence in the future earning power of the company and, consequently, the more investors are prepared to pay in relation to the earnings stream of the company.

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THE INVESTMENT RATIOS FOR BENCECI Plc

	19x2	19x3
Dividend Per share	6.7p	9.0p
Dividend Payout ratio	25.3%	36.5%
Earnings Per share	26.5p	24.6p
OCF per share	38.5p	37.6p
Price/Earnings ratio	9.4 times	14.2 times

COMPARISON OF INVESTMENT RATIOS

There has been a significant increase in the dividend per share in 2009 when compared to the previous year. The dividend payout ratio reveals that this can be attributed at least in part to, an increase in the proportion of earnings distributed to ordinary shareholders

Earnings per share show a slight fall in 2009 when compared with the previous year. A slight fall also occurs in the operating cashflows per share. However, the price/earnings ratio shows a significant improvement. The market is clearly much more confident about the future prospects of the business at the end of the year to 31 March 2009.

LIMITATIONS OF RATIO ANALYSIS

Although ratios offer a quick and useful method of analyzing the position and performance of a business they are not without their limitations.

(1) Quality of Financial statements: - It must always be remembered that ratios are based on financial statements and the results of ratio analysis are dependent on the quality of these underlying statements. Ratios will inherit the limitations of the financial statements on which they are based.

In recent years, for example, conventional accounts have been distorted as a result of changing price levels. Traditional accounting assumes unfortunately, that, the monetary unit will remain stable over time even though there have been high levels of inflation during the past few decades. One effect of inflation is that values of assets held for any length of time, may bear little relation to current values. Generally speaking, the value of assets held will be understated in current terms during a period of inflation as they are recorded at their original costs (less an amount written off for depreciation).

Another example is the revaluation of freehold land in the 1970's and 1980's in the UK in response to inflation. This was to present a more realistic view of the financial position of some companies. This could create problems as key ratios such as ROCE, ROSF and Sales to capital employed can be greatly distorted as a result of changes in values assigned to freehold land.

(2) The basis for comparison:-
When comparing businesses, it is important to note that no two businesses will be identical and the greater the differences between businesses being compared, the greater the limitations of ratio analysis.

Also differences in such matters as accounting policies, financing policies and financial year-ends will add to the problems of evaluation.

(3) Balance Sheet ratios-
Because the balance sheet is only a 'snapshot' of the business at a particular moment in time, any ratios based on balance sheet figures, such as the liquidity ratios calculated, may not be representative of the financial position of the business for the year as whole. For example, it is common for a seasonal business to have a financial year-end which coincides with a low point in business activity.

Review Questions

1. Explain the key steps in financial ratio analysis
2. Discuss the limitations of ratios as a tool of financial analysis

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UNIT 5

METHODS OF INVESTMENT APPRAISAL

INTRODUCTION

In our first lecture, we identified the three key areas of concern to the financial manager .The first of these was: **"what long term investments should you take on? Or "what non-current assets should we buy?"**This is called the capital budgeting decision. The process of allocating or budgeting capital is usually more involved than just deciding on whether or not to buy a particular asset. Management of a company will frequently face broader issues like whether or not they should launch a new product or enter a new market. Decisions such as these will determine the nature of a firm's operations for years to come primarily because non-current asset investments are generally long-lived and not easily reversed once they are made.

These sorts of decisions require not only brave people, but informed people; individuals of the required caliber need to be informed about a range of issues: for example, the market environment and the level of demand for the proposed activity, the internal environment, culture and capabilities of the firm, the types and levels of cost and of course, an understanding of the risk and uncertainty appertaining to the project.

Bravery, information, knowledge and a sense of proportion are essential ingredients when undertaking the onerous task of investing other people's money, but there is another element which is also of crucial importance, that is, the employment of an investment appraisal technique which leads to the "correct" decision; a technique which takes into account the fundamental considerations.

In April 2003, Toyota South Africa announced that it is to invest R1.7 billion in a new export programme to supply vehicles to Europe, the rest of Africa as well as the Caribbean, as the next stage of an expanding multi-billion rand roll-out of exports. Toyota's announcement offers an example of a capital budgeting decision.

EVIDENCE ON THE EMPLOYMENT OF APPRAISAL TECHNIQUES

A number of surveys enquiring into the appraisal methods used in practice have been conducted over the past 25 years. The results from surveys conducted by Pike and also by Glen Arnold and Panos Hatzopoulos are displayed in Tables 2.1 and 2.2. Some striking features emerge from these and other studies. Payback remains in wide use, despite the increasing application of discounted cash flow techniques. Internal rate of return is at least as popular as net present value. However, NPV is gaining rapid acceptance. Accounting rate of return continues to be the laggard, but is still used in over 50 percent of large firms. One observation that is emphasized in many studies is the tendency for decision makers to use more than one method. In the 1997 study, 67percent of firms used three or four of these techniques, these methods are regarded as being complementary rather than competitors.

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Table 2.1.

Proportion of Companies Using Technique

Pike Surveys

	1975(%)	1980(%)	1986(%)	1992(%)
Pay back	73	81	92	94
Accounting Rate of Return	51	49	56	50
Internal Rate of Return	44	57	75	81
Net Present Value	32	39	68	74

Pikes Studies focus on 100 large UK firms.

Table 2.2.

Arnold and Hatzopoulos Surveys (1997)

	Small (%)	Medium (%)	Large (%)	Total (%)
Payback	71	75	66	70
Accounting Rate of Return	62	50	55	56
Internal Rate of Return	76	83	84	81
Net Present Value	62	79	97	80

Capital budget (per year) for companies in Arnold and Hatzopoulos study approx.

Small: £1-50m. Medium: £1-100m. Large: £100m+

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Section 1

Objectives

By the end of the section, you should be able to

- Discuss the payback method and accounting rate of return
- Be familiar with how they are used
- Identify the advantages and disadvantages of each

THE PAYBACK PERIOD

The payback period for a capital Investment is the length of time before the accumulated stream of forecasted cash flows equals the initial investment. It is the length of time it takes for an investment to be repaid out of the net cash inflows from a project. The decision rule is that if a project's payback period is less than or equal to a predetermined threshold figure, it is acceptable.

We can illustrate how to calculate a payback with the example below.

Fig. 1. Net Project Cash flows.

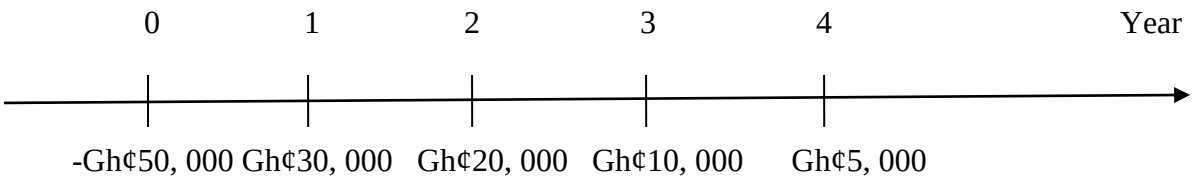

Figure 1 shows the cash flows from a proposed investment project. The question to be asked here is, how many years do we have to wait until the accumulated cash flows from this investment equal or exceed the cost of investment?

As figure 1 indicates the initial investment is Gh¢50, 000. After the first year, the firm recovered Gh¢30, 000, leaving Gh¢20, 000.The cash flow in the second year is exactly Gh¢20,000, so this investment pays for itself in exactly two years. Put another way, the payback period is two years. If we require a payback period of say, 3 years or less, then this investment is acceptable.

In the above example, the payback works out to be exactly two years. This wont usually happen, or course. When the numbers don't work out exactly, it is customary to work with

fractional years. For example suppose the initial investment is Gh¢60, 000, and the cashflows are Gh¢20, 000 in the first year and Gh¢90, 000 in the second. The cash flows over the first two years are Gh¢110, 000, so the project obviously pays back sometime in the second year. After the first year, the project has paid back Gh¢20, 000, leaving Gh¢40, 000 to be recovered. To figure out the fractional year, note that this Gh¢40, 000 is Gh¢40, 000/Gh¢90, 000=4/9 of the second year's cash flow. Assuming that the Gh¢90,000 cash flow is paid uniformly throughout the year, the payback would thus be 1,4/9 years or the fifth month in the second year

Now that we know how to calculate the payback period on an investment, using the payback period rule for making decisions is straight forward. A particular cut-off time is selected say, two years, and all investment projects that have payback periods of two years or less are accepted and all of those that pay off in more than two years are rejected.

Consider the example in the table below:

Year	Net Cash flows	Cumulative Cash flows	Net
	Gh¢000	Gh¢000	Gh¢000
0	(100)	(100)	
1	20	(80)	(20-100)
2	40	(40)	(40-80)
3	60	20	(60-20)
4	60	80	(60+20)
5	20	100	(20+80)
6	20	120	(20+100)

The payback period for this investment is nearly three years, that is, it will be nearly three years before the Gh¢100, 000 outlay is covered by the inflow.

Example 3 – Mutually Exclusive Projects

	Project 1	Project 2	Project 3
Year	Gh¢000	Gh¢000	Gh¢000
0	(200)	(200)	(200)
1	40	10	80
2	80	20	100
3	80	170	20
4	60	20	200
5	40	10	500
6	40	10	20

The payback period for each project is three years and so the payback period approach would regard the projects as being equally acceptable.

Advantages of the Payback Period

1) It is quick and easy to calculate and can be easily understood by managers. Projects which can recoup their cost quickly are viewed as more attractive than those with longer payback periods. Research undertaken by Glen Arnold suggests that Payback is rarely used as a primary investment technique, but rather as a secondary method which supplements the more sophisticated methods.

2) Executives and directors who use payback admit that even though it does not always give the best decisions, it is the simplest way to communicate an idea of project profitability. They claim that NPV for instance is difficult to understand and it is useful to have an alternative measure which all managers can follow.

Disadvantages of the Payback Period

1) The first drawback of the Payback Period rule is that it makes no allowance for the time value of money. It ignores the need to compare future cash flows with the initial investment after they have been discounted to their present values.

2) In example three, the payback for each of the projects is three years and so the payback approach would regard the projects as being equally acceptable .The payback method cannot distinguish between those projects which pay back a significant amount at an early stage and those which do not. In example three, project three repays Gh¢180,000 in year 2 while projects one and two pay Gh¢120,000 and Gh¢30,000 respectively.

3) Another drawback of the payback rule is that it ignores receipts or cash flows beyond the payback period. This may lead to rejection of long term profitable projects. More generally, using a payback period rule will tend to bias us towards shorter term investments.

4) Another short coming is the arbitrary selection of the cut-off point. There is no theoretical basis for setting the appropriate time period and so guesswork, whim and manipulation take over.

CLASS WORK (EXAMPLE4)

	Project A	Project B	Project C
Year	Cash flows (Gh¢m)	Cash flows (Gh¢m)	Cash flows (Gh¢m)
0	(10)	(10)	(10)
1	6	1	3
2	2	1	1
3	1	2	2
4	1	6	2
5	2	2	15
6	2	2	10

Payback Period
Project A: 4 years
Project B: 4 years
Project C: 5 years

ACCOUNTING RATE OF RETURN

The accounting rate of return (ARR) is also commonly referred to as the Return on Investment (ROI) or the Return on Capital Employed (ROCE). There are many ways in which this measure can be derived, its base form being the ratio of some measure of accounting profit to a corresponding measure of capital outlay.

One of the more common ways of deriving this ratio for decision making is to calculate a project's average profit after depreciation but before any allowance for taxation and divide this by the average capital employed during the life of the project.

Let us consider a simple example:

Example 6
A project requires an initial capital outlay of Gh¢500,000 and has a life of 5 years, at the end of which it can be sold as scrap for Gh¢50,000. The expected annual profits over this period for the project are:

Year	Gh¢
1	40,000
2	100,000
3	160,000
4	120,000
5	30,000

$$ARR = \frac{\text{Average Annual Profit}}{Average\text{Capital Employed}} \times 100$$

a) Average Annual Profit ;
$$\frac{(40{,}000+100{,}000+160{,}000+120{,}000+30{,}000)}{5} = GH¢90{,}000$$

b) Average Capital Employed: $\frac{GH¢500{,}000 + GH¢50{,}000}{2} = Gh¢275{,}000$

$$ARR = \frac{90{,}000}{275{,}000} \times 100 = 32.73\%$$

Note that the denominators for the first two stages of this calculation were 5 and 2 respectively. In (a) 5 was used to give the average annual profit, while in (b) 2 was used to give the simple average of capital deployed throughout the entire five year life of the project.

Once the ARR has been determined, a simple accept / reject decision is then made on the basis of the percentage return achieved. Providing the ARR, which in this case was 32.73%, exceeds some predetermined 'target' rate of return, the project is accepted, otherwise, it is rejected. In the case of competing projects, the decision rule is to accept the one with the higher ARR provided that it is larger than the target rate.

Example 7

Consider the following Projects. They all have a five year life and require an initial investment of Gh¢ 200,000 with anticipated scrap value of Gh¢ 0.

Year	Project A	Project B	Project C	Project D
	Gh¢	Gh¢	Gh¢	Gh¢
1	10,000	50,000	5,000	13,000
2	20,000	40,000	18,000	37,000
3	30,000	30,000	88,000	10,000
4	40,000	20,000	6,000	15,000
5	50,000	10,000	2,000	20,000

$$ARR = \frac{\text{Average Annual Profit}}{Average\text{Capital Employed}} \times 100$$

A(i) $\frac{150{,}000}{5} = 30{,}000$

A (ii) $\frac{200{,}000 + 0}{2} = 100{,}000$

Project A: ARR

$= \frac{30{,}000}{100{,}000} \times 100$

ARR=30%

B(i) $\frac{150{,}000}{5} = 30{,}000$

B (ii) $\frac{200{,}000 + 0}{2} = 100{,}000$

Project B: ARR

$= \frac{30{,}000}{100{,}000} \times 100$

ARR=30%

Advantages of ARR

1) One of the advantages are its ease of calculation , the fact that it considers the accounting profit flows throughout the life of a project and that it produces a percentage rate of return which is a ratio commonly used by market analysts and others when measuring the profitability of a company.

Disadvantages of ARR

1) Since this is an accounting ratio, non-cash items such as depreciation are included. The production of a ratio in percentage terms fails to reflect the absolute size of investment and, although the whole lives of individual projects are considered, this method fails to distinguish between the differing lives of mutually exclusive projects.

2) Finally and most fundamentally, the ARR method ignores the timing of the earnings stream of projects. An illustration of this is provided by example 7 which compares two projects each having a five year life and requiring an initial investment of Gh¢200, 000 with an anticipated scrap value of Gh¢ 0.

Review Questions

1. Explain the payback method and accounting rate of return
2. Identify the advantages and disadvantages of the payback method and accounting rate of return

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Section 2

Objectives

By the end of the section, you should be able to

- Explain the time value of money
- Discuss discounted payback method
- Be familiar with how they are used

DISCOUNTED CASH FLOW TECHNIQUES

The time value of money

When people undertake to set aside money for investment, something has to be given up now. For instance if someone buys in a firm or lends money to a business, there is a sacrifice of consumption. One of the incentives to save is the possibility of gaining a higher level of future consumption by sacrificing some present consumption. It is therefore apparent that compensation is required to induce people to make a consumption sacrifice. Compensation will be required for at least three things.

Time: that is individuals generally prefer to have Gh¢ 1.00 today than Gh¢ 1.00 in five years time. That is, the utility of Gh¢1.00 now is greater than Gh¢1.00 received in five years from hence. The rate of exchange between certain future consumption is the pure rate of interest .This occurs even in a world of no inflation and no risk .If you live in such a world you might be willing to sacrifice Gh¢100 of consumption now if you were compensated with Gh¢104 to be received in one year .This would mean that your pure rate of interest is 4%.

Inflation: The price of time (or the interest rate needed to compensate for time preference) exists even when there is no inflation simply because people generally prefer consumption now to consumption later. If there is inflation, then the providers of finance will have to be compensated for that loss in purchasing power as well as for time.

Risk: The promise of a receipt of a sum of money some years hence generally carries with it an element of risk; the payout may not take place or the amount may be less than expected. Risk simply means that the future return has a variety of possible values. Thus the issuer of a security, whether it is a share, a bond or a bank account must be prepared to compensate the investor for time, inflation and risk involved, otherwise no one will be willing to buy the security.

Different investment categories carry different degrees of uncertainty about the outcome of the investment. For instance, an investment on the Russian stock market, with its high volatility is regarded more risky than buying shares in B.P. on the London stock exchange with its steady growth prospects. Investors require different risk premiums on top of the Risk Free Rate, (RFR) to reflect the perceived level of extra risk. Thus:

Required Return= RFR+ Risk Premium

DISCOUNTED CASHFLOW TECHNIQUES

Discounted Payback

With discounted payback the future cash flows are discounted prior to calculating the payback period. This is an improvement on the simple payback method in that, it takes into account the time value of money. The discounted payback period is the length of time until the sum of the discounted cash flows is equal to the initial investment. The discounted payback rule would be:

'Based on the discounted Payback rule, an investment is acceptable if its discounted payback is less than some specified number of years'.

The process of discounting relies on a variant of the compounding formula;

$F = P(1+r)^n$ where;

F= future value
P= Present Value
r= interest rate
n= number of years over which compounding takes place.

E.g. If a saver deposited Gh¢100 in a bank account paying interest at 8% per annum , after three years , the account will contain Gh¢125.97. The figure was arrived at using the above formula as follows:

$F = P(1+r)^n$ $= 100(1+0.08)^3 =$ Gh¢125.97

The formula can be changed so that we can answer the following questions:' How much must I deposit in the bank now to receive Gh¢125.97 in three years at an annual interest rate of 8%.

$$P = \frac{F}{(1+r)^n} \text{ or } F \times \frac{1}{(1+r)^n}$$

$$P = \frac{125.97}{(1+0.08)^3} = 100$$

If we consider the case of Example 4, we can discount the net cash flows of projects A, B and C using a discount rate of 10 percent as follows. To get the discounted payback, we have to discount each cashflow at 10 percent, add them up and then subtract the initial investment

capital from it. The discounted payback method is therefore based on the NPV rule that projects with a positive NPV should selected. The NPV formula is as follows;

$$NPV = F_0 + \frac{F_1}{(1+r)^n}$$ where;

F_0 = cash flow at time zero and
F_1= cash flow at time one (t_1)
r= rate of interest and
n= number of years.

To calculate the discounted payback for projects A, B, and C in example 4, the NPV formula becomes.

$$NPV = F_0 + \frac{F_1}{(1+r)^1} + \frac{F_2}{(1+r)^2} + \frac{F_3}{(1+r)^3} \ldots\ldots\ldots\ldots \frac{F_6}{(1+r)^6}$$

$$NPV = \sum_{t=1}^{t=n} F_0 + \frac{F_n}{(1+r)^n} \text{ or NPV} = \sum_{t=1}^{t=n} \frac{F_n}{(1+r)^n} - F_0$$

Where F_n= the net cash flow at the end of year n
F_0= the initial investment outlay at t= 0
r = the discount rate based on the opportunity cost of capital
n = the projects expected life cycle.

For example 4, the discounted Payback is as follows:

Project A

$$-10 + \frac{6}{(1.1)} + \frac{2}{(1.1)^2} + \frac{1}{(1.1)^3} + \frac{1}{(1.1)^4} + \frac{2}{(1.1)^5} + \frac{2}{(1.1)^6} = GH¢0.913m$$

Project B

$$-10 + \frac{1}{(1.1)} + \frac{1}{(1.1)^2} + \frac{2}{(1.1)^3} + \frac{6}{(1.1)^4} + \frac{2}{(1.1)^5} + \frac{2}{(1.1)^6} = GH¢0.293m$$

Project C

$$-10 + \frac{3}{(1.1)} + \frac{2}{(1.1)^2} + \frac{2}{(1.1)^3} + \frac{2}{(1.1)^4} + \frac{15}{(1.1)^5} + \frac{10}{(1.1)^6} = GH¢12.208m$$

Project A has a positive NPV and is therefore shareholder wealth enhancing. Project B, has a negative NPV; the firm would be better served by investing the Gh¢10m in the alternative that offers a 10 percent return. Project C had the largest positive NPV and is therefore the one that creates most shareholder wealth.

Example 5-class work

Cash flow

	Undiscounted	Discounted
Year	Gh¢	Gh¢
0	-300	-
1	100	89
2	100	79
3	100	70
4	100	62
5	100	55
		355

Calculate the present values by using a discount rate of 12.5 percent.

The Net Present Value and Internal Rate of Return techniques, both being discounted cash flow methods take into account the time value of money.

$$NPV = \sum_{t=1}^{t=n} F_0 + \frac{F_n}{(1+r)^n} \text{ or } \text{NPV} = \sum_{t=1}^{t=n} \frac{F_n}{(1+r)^n} - F_0$$

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Example 1

Project Alpha, simple cash flow

Year	Cash flows
0-Now	-2000
1 (1year from now)	+600
2	+600
3	+600
4	+600

NPV calculation for Project Alpha, assuming that the time value of money is 19%

$$-2000+\frac{600}{(1+0.19)}+\frac{600}{(1+0.19)^2}+\frac{600}{(1+0.19)^3}+\frac{600}{(1+0.19)^4}$$

-2000+504.20+423.70+356.05+299.20

=-416.85

The NPV rule is as follows;

NPV$\geq$0 Accept

NPV $<$0 Reject

Example 2

Let us consider projects C and D assuming the opportunity cost of capital is 10%

Project C			Project D		
Year	Cash flows	PV	Year	Cash flows	PV
0	-20,000	-20,000	0	-20,000	-20,000
1	+12,000	+10,908	1	+8,000	+7,272
2	+8,000	+6,608	2	+8,000	+6,608
3	+8,640	+6,489	3	+4,000	+3,004
4			4	+8,000	+5,464
			5	+6,000	+3,726
	NPV	+ 4,005		NPV=	+6,074

Both projects have positive NPV's, but if they were mutually exclusive project D would be preferred. This is the reverse situation to the advice that would have been given by the payback period method. The difference between payback period and NPV is that the latter takes into account those cash flows arising after the payback cut off period and also considers the time value of money.

Example 3- class work

KSB Plc is examining two projects A and B. The cash flows are as follows;

	A	B
Year	Gh¢	Gh¢
0	-240,000	-240,000
1	200,000	20,000
2	100,000	120,000
3	20,000	220,000

Using discount rates of 8% and 16%, calculate the NPV's and state which project is superior.

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$$NPV = F_0 + \frac{F_1}{(1+r)^1} + \frac{F_2}{(1+r)^2} + \frac{F_3}{(1+r)^3}$$

Project A @ 8% OR 0.08

$$-240{,}000 + \frac{200{,}000}{(1+0.08)} + \frac{100{,}000}{(1+0.08)^2} + \frac{20{,}000}{(1+0.08)^3}$$

-240,000+185,185+85,734+15,877= Gh¢46, 796

Project B @ 8% OR 0.08

$$-240{,}000 + \frac{20{,}000}{(1+0.08)} + \frac{120{,}000}{(1+0.08)^2} + \frac{220{,}000}{(1+0.08)^3}$$

-240,000+18,519+102,881+174,643= Gh¢56, 043

Using 8% discount rate both projects produce positive NPV's and therefore would enhance shareholder wealth. However project B is superior.

Using 16% as the discount rate

Project A @ 16% or 0.16

$$-240{,}000 + \frac{200{,}000}{(1+0.16)} + \frac{100{,}000}{(1+0.16)^2} + \frac{20{,}000}{(1+0.16)^3}$$

-240,000+172,414+74,316+12,813= Gh¢19, 543

Project B @ 16% or 0.16

$$-240{,}000 + \frac{20{,}000}{(1+0.16)} + \frac{120{,}000}{(1+0.16)^2} + \frac{220{,}000}{(1+0.16)^3}$$

-240,000+17,241+89,180+140,945= Gh¢7, 366.

Using 16% discount rate, project A generated more shareholder value so would be preferred to project B. This is despite the fact that project B in pure undiscounted cash flow terms produces an additional Gh¢40, 000.

Review Questions

1. Explain the time value of money
2. Explain the discounted payback method

Section 3

Objectives

By the end of the section , you should be able to

- Discuss Internal rate of return
- Be familiar with how they are used
- Identify merits of NPV

INTERNAL RATE OF RETURN

The internal rate of return (IRR) is the discount rate which when applied to the future cash flows will make them equal to the initial outlay. In essence, it represents the yield from an initial investment opportunity. The IRR takes into account the time value of money. It is the discount rate which will produce a zero NPV. The rule for internal rate of return decision is:

If k is greater than r= reject

If k $\leq$ r accept

If the opportunity cost of capital (k) is greater than the internal rate of return (r) on a project then it must be rejected.

Examples

Hard Decision Plc is considering the following investment

Year	cash flow (Gh¢m)
0	-11
1	12

Opportunity cost of capital is 15%

$$NPV = -11 + \frac{12}{(1.15)} = -11+10.43= -0.56m$$

NPV= -0.56m

It is somewhat laborious to deduce the IRR by hand since it cannot usually be calculated directly. Iteration (trial and error) is the approach which must be adopted. IRR is also referred to as yield of a project. Based on the definition of IRR, the calculation for Hard Decision Plc will be as follows:

$$NPV = F_0 + \frac{F_1}{1+r} = 0$$

$-11 + \frac{12}{(1+r)} = 0$, using try and error let us try 5%.

$-11 + \frac{12}{(1+0.05)}$ = Gh¢0.42857m or Gh¢428, 571.

5% is not correct because the discounted cash flows do not total to zero. The surplus of Gh¢0.43 suggests that a higher interest rate will be more suitable. Let us try 10%.

$-11 + \frac{12}{(1+0.1)}$ = -0.0909 or -Gh¢90, 090.

Again we have not hit on the correct discount rate so let us try 9%.

$-11 + \frac{12}{(1+0.09)}$ =+0.009174 or Gh¢9,174

The last two calculations suggest that the interest rate which equates to the present value of - the cash flows lies somewhere between 9% and 10%. The precise rate can be found through linear Interpolation ad follows: Exhibit 1

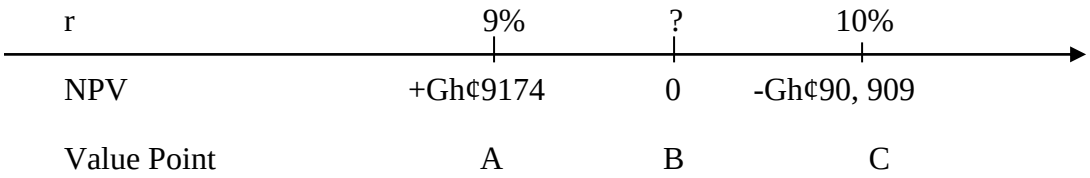


Exhibit 1 illustrates that there is a yield rate (r) which lies between 9% and 10% which will produce an NPV of zero. The way to find that interest rate is to first find the distance between points A and B, as a proportion of the entire distance between points A and C.

$$= \frac{A \to B}{A \to C} = \frac{9174 - 0}{9174 + 90909} = 0.0917$$

Thus the? Lies at a distance of 0.0917 away from the 9% point

Thus IRR:

$$9 + \left(\frac{9174}{100{,}083}\right) \times (10 - 9) = 9.0917$$

To double check our result:

$$-11+\frac{12}{(1+0.090917)}=-11+11=0$$

Consider the following Projects:

Year	cash flows		Discounted cashflows@15%
0	-11		-11
1	-4	-4/ (1+0.15)	-3.48
2	-10	-10/ $(1+0.15)^2$	-7.56
3	1	1/ $(1+0.15)^3$	0.66
4	2	2/ $(1+0.15)^4$	1.14
5	4	4/ $(1+0.15)^5$	1.99
6	40	40/ $(1+0.15)^6$	17.29
NPV			-0.96

To calculate IRR for this project
$-11+-4/(1+r)+-10/(1+r)^2+1/(1+r)^3+2/(1+r)^4+4/(1+r)^5+40/(1+r)^6=0$

Let us try 14%
NPV = -Gh¢0.043 or -Gh¢43,000

At 13%
NPV = 932,000

Interpolation is required to find an IRR accurate to at least one decimal place.

13 + 932,000/975,000*(14-13) =13.96%

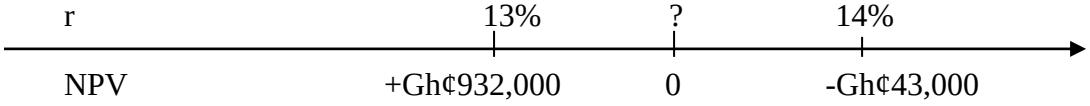


Exhibit 2

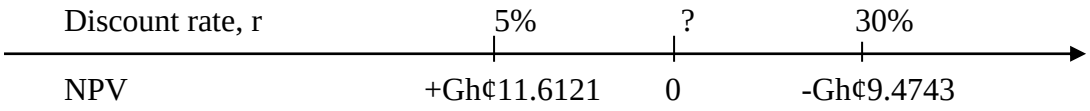
For the above project, we can calculate IRR using 5%and 30%

At 5% NPV = Gh¢11.6121m

At 30% NPV = -Gh¢9.4743m.

IRR = 5 + (11.6121/11.6121 +9.4743) *(30-5) =18.77%

Linear interpolation



MERITS OF NPV

1) The timing of cash flows – By discounting the various cash flows associated with each project according to when they are expected to arise, the NPV takes into account the time value o f money. The discount factor is based on the opportunity cost of capital.

2) The whole of the relevant cash flows-NPV includes all of the relevant cash flows irrespective of when they are expected to occur. It treats them differently according to their dates of occurrence but they are all taken into account.

3) The objective of the business- the output of the NPV analysis has a direct bearing on the wealth of the shareholders of a business (positive NPV's enhance wealth, negative ones reduce it).

Review Questions

1. Explain Internal rate of return
2. Identify the merits of NPV

UNIT 6

MANAGEMENT OF WORKING CAPITAL

Section 1

Objectives

By the end of the section, you should be able to

- Define working capital
- Identity the major elements of current assets and current liabilities
- Know the changes in the business environment that might lead to a decision to change the level of investment in working capital

Introduction

Working capital is usually defined as: 'Current assets less Current liabilities (that is, creditors due within one year)'. The major elements of current assets are;

(a) Stocks
(b) Trade Debtors
(c) Cash (in hand and at bank)

The major elements of current liabilities are:

(a) Trade Creditors and
(b) Bank Overdrafts

The size and composition of working capital can vary between industries. For some types of business, the investment in working capital can be substantial, for example, a manufacturing company will invest heavily in raw materials, work – in – progress and finished goods and will often sell goods on credit thereby incurring trade debtors. A retailer, on the other hand, will hold only one form of stock (finished goods), and will usually sell goods for cash.

Working capital represents a net investment in short-term assets. These assets are continually flowing into and out of the business and are essential for day to day operations. The various elements of working capital are interrelated and can be seen as part of a short-term cycle. The management of working capital is an essential part of the short term planning process. It is necessary for management to decide how much of each element should be held.

Working capital needs are likely to change over time as a result of changes in the business environment; this means that working capital decisions are rarely one – off decisions. Managers must try to identify changes occurring so as to ensure the level of investment in working capital is appropriate.

Q. What kind of changes in the business environment might lead to a decision to change the level of investment in working capital? Try and identify four possible changes

In answering this activity, you may have thought of the following;

(a) Changes in interest rates
(b) Changes in market demand
(c) Changes in seasons
(d) Changes in the state of the economy

In addition to changes in the external environment, changes arising within the business such as changes in production methods (resulting, perhaps, in a reduced need to hold stock) and changes in the level of risk that managers are prepared to take could alter the required level of investment in working capital.

In the sections, which follow, we will consider each element of working capital separately, examining the factors, which must be considered to ensure their proper management.

Review Questions

1. Define working capital
2. What are the changes in the business environment that might lead to a decision to change the level of investment in working capital

Section 2

Objectives

By the end of the section, you should be able to

- Explain stock management
- Identify costs associated with keeping low stock
- Explain a number of procedures and techniques that may be employed to manage stocks.
- Explain just – in – time (JIT) stock management materials requirements planning (MRP)

MANAGEMENT OF STOCK

A business may hold stocks for various reasons. The most common reason is, of course, to meet the immediate day – to -day requirements of customers and production. However, a business may hold more than is necessary for this purpose, if it is believed that future supplies may be interrupted or scarce. Similarly, if the business believes that cost of stocks will rise in the future, it may decide to stockpile.

Where a business holds stock simply to meet the day-to-day requirements of its customers and production, it will normally seek to minimize the amount of stock held. This is because, there are significant costs associated with holding stocks. These include storage and handling costs, financing costs, the risk of pilferage and obsolescence, and the opportunities foregone in tying up funds in this form of asset. However, a business must also recognize that, if the level of stocks held is too low, there will also be associated costs such as:

(a) Loss of sales, from being unable to provide the goods required immediately.
(b) Loss of good will from customers, through inability to satisfy customer demand
(c) High transportation cost incurred to ensure stocks are replenished quickly.
(d) Lost production owing to shortage of raw materials
(e) Inefficient production scheduling due to shortages.
(f) Purchasing stocks at a higher price than may otherwise have been necessary in order to replenish stock quickly.
(g) Wasted production runs in restart situations.

In practice, a number of procedures and techniques may be employed to manage stocks. These are described below.

(a) Forecasts of future Demand;

In order for there to be stock available to meet future sales, a business must produce appropriate forecasts. The forecast should deal with each product line. It is important that every attempt is made to ensure the accuracy of these forecasts, as they will determine future ordering and production levels. These forecasts may be derived in various ways. They may be developed using statistical techniques, or they may be based on the judgment of the sales and marketing staff.

(b) Financial Ratios:

A financial ratio, which can be used to help monitor stock levels, is the average stock turnover period which we have already examined. The ratio, as you may recall, is calculated as follows:

$$\text{Average stock Turnover period} = \frac{\text{Average Stock held}}{\text{cost of sales}} \times 365 \text{ days}$$

The ratio will provide a picture of the average period for which stocks are held and can be useful as a basis for comparison.

(c) **Recording and Reordering Systems:**

The management of stocks in a business of any size requires a sound system of recording stock movements. There must be proper procedures for recording stock purchases and sales. Periodic stock checks will usually be required to ensure that the amount of physical stocks held is consistent with the stock records. There should also be clear procedures for the reordering of stocks. Authorization for both the purchase and reordering of stocks should be confined to a few senior staff if problems of duplication and lack of co-ordination are to be avoided. To determine the point at which stock should be ordered, information, concerning the lead time (the time between the placing of an order and the receipt of the goods) and the likely level of demand will be required.

In most businesses, there will be some uncertainty surrounding the above factors, and so a buffer or safety stock level may be maintained in case problems occur. The effect of holding safety stock will be to raise the reorder point for goods.

(d) **Levels of Control**

Management must make a commitment to the management of stocks. However, the cost of controlling stocks must be weighed against the potential benefits. It may be possible to have different levels of control.

A business may find that it is possible to divide its stock into three broad categories: A, B and C. Each category will be based on the value of stock held. Category A stocks will represent the high – value items. It may be the case, however, that although the items are high in value and represent a high proportion of the total value of stocks held, they are a relatively small proportion of the total volume of stocks held.

For example, 10 per cent of the physical stocks held may account for 65 per cent of total value. For these stocks, management may decide to implement sophisticated recording procedures, exert tight control over stock movements and have a high level of security at the stock location.

Category B stocks will represent less valuable items held, perhaps 30 percent of the total volume of stocks may account for 25 percent of the total value of stocks held.

Categorizing stock in this way can help ensure that management's effort is directed to the most important areas and that the cost of controlling stocks are commensurate with their value.

(e) **Stock Management Models**

It is possible to use decision models to help manage stocks, the economic order quantity (EOQ) Model is concerned with the question: how much stock should be ordered? In its simplest form, the EOQ model assumes that demand is constant, so that stocks will be depleted evenly ever time and that stocks will be replenished just at the point the stock runs out.

EOQ also assumes that the key costs associated with stocks are the cost of holding them and ordering them. It also assumes that companies do not require any safety stock and that stock can be purchased in single units that correspond exactly to the EOQ, for example, 158 units and not in multiples of 50 or 100 units.

Finally the EOQ assumes that no discounts are available for bulk purchases. The above assumptions do not mean we should dismiss the model as being of little value. The model can be refined to accommodate the problems of uncertainty and uneven demand as has been done by many businesses.

MATERIALS REQUIREMENTS PLANNING (MRP)

A material requirement planning (MRP) system takes as its starting point forecasts of sales demand. It then uses computer technology to help schedule the timing of deliveries of bought in parts and materials to coincide with production requirements to meet the demand. MRP is a co-ordinated approach, which links material and parts deliveries to their scheduled input to the production process. By ordering only those items, which are necessary, to ensure the flow of production, stock levels may be reduced.

JUST – IN – TIME (JIT) STOCK MANAGEMENT

Some manufacturing businesses have tried to eliminate the need to hold stocks by adopting a just – in – time (JIT) stock management. This method was first used in the US defence industry during World War II but in more recent times has been widely used by Japanese businesses. The essence of this approach is, as the name suggests, to have supplies delivered to a business just in time for them to be used in the production process. By adopting this approach the stock holding problem rests with the suppliers rather than the business.

In order for this approach to be successful, it is important for businesses to inform suppliers of its production plans and requirements in advance and for suppliers to deliver materials of the right quality at the agreed times. Failure to do so could lead to a dislocation of production and could be very costly. Thus a close relationship between the business and its suppliers is required.

In JIT, as the suppliers will be required to hold stocks for the business, they may try to recoup this additional cost through increased prices. The price of stocks may also be increased if JIT requires a large number of small deliveries to be made. Finally the close relationship necessary between the business and its suppliers may prevent the business from taking advantage of cheaper sources of supply when they become available.

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23’

Review Questions

1. Explain stock management

2. Explain a number of procedures and techniques that may be employed to manage stocks.

Section 3

Objectives

By the end of the section, you should be able to
- Explain management of debtors
- Explain five the Cs of credit

MANAGEMENT OF DEBTORS

Selling goods on credit is very widespread and appears to be the norm outside the retail trade. When a business offers to sell its goods or services on credit, it must have clears policies concerning:

(a) Which Customers should receive credit
(b) How much credit should be offered
(c) What length of credit it is prepared to offer
(d) Whether discounts will be offered for prompt payment
(e) What collection policies should be adopted
(f) How the risk of nonpayment can be reduced.

Each of these issues is discussed below:
(a) Which customers should receive credit?

The following 'five Cs of credit provide a useful checklist when considering a request from a customer for supply on credit:

1. Capital – the customer must appear to be financially sound before any credit is extended. An examination of a business's account with particular regard to profitability and liquidity should be done.

2. Capacity – the payment record of the business should be examined by looking at the type of business as well as its physical resources to check the capacity of the business to pay.

3. Collateral – On occasions, it may be necessary to ask for some kind of security for goods supplied on credit.

4. Conditions – the state of the industry in which the customer operates and the general economic conditions of the particular region or country may have an important influence on the ability of a customer to pay.

5. Character – it is important for a business to make some assessment of the character of the customer. In the case of a limited company, this will mean assessing the characters of its directors.

Other sources of Information available to a business to help assess the financial health of a customer and its willingness to pay include:

(a) Trade references - from other or previous suppliers.

(b) Bank references – this will usually not be very informative.
(c) Published accounts – in the case of limited companies
(d) The Customer – Interview company directors and visit company premises to gain some impression of the way the company conducts its business.
(e) Credit Reference Agencies – Specialist agencies exist to provide information, which can be used to assess the credit worthiness of a potential customer.
(f) Register of County Court Judgments- any money judgments given against a business or an individual in a county court will be maintained on a register for 6 years.
(g) Other suppliers – similar business will often be prepared to exchange information concerning slow payers or defaulting customers through an industry credit circle.

(B) HOW MUCH CREDIT SHOULD BE OFFERED

Once a customer is considered credit worthy, a credit limit for the customer should be established. Unfortunately, there are no theories or models to help a business decide on the appropriate credit limit: it is really a matter of judgment.

(C) LENGTH OF CREDIT PERIOD

A business must determine what length of credit it is prepared to offer its customers. This can vary significantly between businesses and is influenced by such factors as:

(1) The typical credit terms operating within the industry
(2) The degree of competition within the industry.
(3) The bargaining power of particular customers
(4) The risk of non payment
(5) The capacity of the business to offer credit to customers
(6) The marketing strategy of the business.

(D) CASH DISCOUNTS

A business may decide to offer a cash discount in order to encourage prompt payment from its credit customers. The size of any discount will be an important influence on whether a customer decides to pay promptly.

There is always the danger that a customer may be slow to pay and yet may still take the discount offered. In order to reduce this, companies can agree in advance to provide discount for prompt payment by customers through quarterly credit notes. As credit note will only be given for debts paid on time, the customer will often make an effort to qualify for the discount.

(E) COLLECTION POLICIES

A business offering credit should ensure that amounts owning are collected as quickly as possible, various steps can be taken to achieve this including the following:

(1) Developing customer relationships especially with key staff responsible for paying sales invoices.

(2) Monitor outstanding debts through for example calculating the average settlement period for debtors.

(F) REDUCING THE RISK OF NON-PAYMENT

Efficient collection polices are important in reducing the risk of non-payment. A business can reduce this type of risk through:

(1) Requiring customers to pay part of the sales value in advance of the goods being sent.
(2) Requiring a third party guarantee from a financially sound business such as a bank or parent company.

Review Questions

1. Explain management of debtors
2. Explain five the Cs of credit

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

Section 4

Objectives

By the end of the section, you should be able to

- Explain cash management
- Discuss the three motives for holding cash
- Explain the operating cash cycle

MANAGEMENT OF CASH

Why Hold Cash?

According to economic theory, there are 3 motives for holding cash. They are:

(1) Transaction motive: In order to meet day-to-day commitments such as payment of wages, overheads and goods purchased to be paid at due dates.

(2) Precautionary motive – if future cash flows are uncertain for any reason, it would be prudent to hold a balance of cash.

(3) Speculative motive – A business may decide to hold cash in order to be in a position to exploit profitable opportunities as and when they arise. By holding cash, a business may be able to acquire a competitor business that suddenly becomes available at an attractive price.

HOW MUCH CASH SHOULD BE HELD?

The decision as to how much cash a particular business should hold is a difficult one. This decision is usually influenced by the following factors:

- The nature of the business- some businesses such as utilities (water & electricity) may have predictable cash flows and so can hold lower cash balances.

- The opportunity cost of holding cash- where there are profitable opportunities, it may be wiser to invest in those opportunities than to hold a large cash balance.

- The availability of near liquid assets- if a business has marketable securities or stocks which may easily be liquidated, then the amount of cash held may be reduced.

- Availability of borrowing- if a business can borrow easily, (and quickly); there is less need to hold cash.

- Interest rates/cost of borrowing: When interest rates are high, the option of borrowing becomes less attractive.

FINANCIAL OTABIL FOR KSB FINANCIAL SECRETARY HOPEFUL 23'

OPERATING CASH CYCLE

When managing cash, it is important to be aware of the **operating cash cycle** of the business. This may be defined as the time period between the outlay of cash necessary for purchase of stocks and the ultimate receipt of cash from sale of the goods.

The operating cash cycle is important because it has a significant influence on the financing requirements of the business. The longer the cash cycle, the greater the financing requirements of the business and the greater the financial risks. For this reason, a business is likely to want to reduce the operating cash cycle to a minimum.

For a business, which buys and sells on credit, the operating cash cycle can be calculated from the financial statements by the use of certain ratios, as follows;

Average stock turnover period + (plus) Average settlement period for debtors – (minus) Average payment period for creditors = (equals) Operating cash cycle.

HOW A COMPANY CAN REDUCE THE CASH CYCLE

- If a company has a long stock holding period, it can reduce the level of stock held.

- Imposing tighter credit control, offering discounts or charging interest on overdue accounts can reduce average settlement period for debtors. However any policy decisions concerning stocks and debtors must take account of current trading conditions.

- The cycle could also be reduced by extending the period of credit taken to pay suppliers. However, this option must be giving careful consideration.

Review Questions

1. Explain cash management

2. Discuss the three motives for holding cash

Section 5

Objectives

By the end of the section, you should be able to

- Explain management of trade creditors
- Know how to calculate the average settlement period for creditors
- Explain management of Bank Overdrafts

MANAGEMENT OF TRADE CREDITORS

To monitor the level of trade credit taken, management can calculate the average settlement period for creditors; as we have already seen, it is calculated as follows:

$$\frac{\text{Trade creditors}}{\text{Credit purchases}} \times 365\text{days}$$

However, this provides an average figure, which can be distorted. A more informative approach would be to produce an ageing schedule for creditors.

MANAGEMENT OF BANK OVERDRAFTS

Bank overdrafts are flexible form of borrowing and are cheap, relative to other sources of finance. For this reason, the majority of companies employ bank overdraft to finance their business. Although in theory, bank overdrafts are short-term source of finance, in practice they can extend over a long period of time as many businesses continually renew the overdraft facility with the bank.

The decision concerning whether or not to have a bank overdraft should first consider the purpose of borrowing. Overdrafts are most suitable for overcoming short-term funding problems (for example, increases in stockholding requirements owing to seasonal fluctuations) and should be self liquidating. For longer term funding problems or borrowings, which are not self-liquidating, other sources of finance may be more suitable.

Review Questions

1. Explain how a company can manage its of trade creditors

2. How should a company manage its Bank Overdrafts

List of References

1) Atrill, P. (2003).Financial Management for Non- Specialists. 3rd edition. Pearson Education Limited, Essex, U.K.

2) Arnold, G. (2003). Corporate financial management. 2nd edition. Financial times/ prentice Hall / Pearson Education.

3) Brealey, R.A, Myers S.C and Allen F. (2006).Corporate Finance 8th edition. McGraw Hill.

4) Watson, D. And Head, A. (2010). Corporate Finance: Principles and practice. 5th edition. Financial Times/ Prentice Hall/ Pearson Education Limited. Essex, U.K.

5) Aboagye, A.Q.Q. (2009). Introduction to Business Finance. Centre for Distance Education, (IAE) University of Ghana.