Nilai UNIVERSITY

FACULTY OF BUSINESS, HUMANITIES & HOSPITALITY

MASTER IN BUSINESS ADMINISTRATION

BANKING AND FINANCE

BA4401
FINANCIAL MANAGEMENT

SELF INSTRUCTIONAL MATERIALS

ACADEMIC YEAR 2021

Table of Contents

Welcome

This module is included to enable students to master the key issues, the principles and key concepts of financial management.

Description of the Course

This module is included to enable our MBA students to master the key issues in business finance, financial markets and the principles and concepts in accounting statements.

Aim of the Course

Upon completion of the course, students should be able to know how to apply concept and tools of financial analysis as applied by management in various situation. Financial management involves decision making for optimal result after consideration of prepared report.

Course Learning Outcome

After completion of the module, students should be able to:

- appraise the need and benefits of the principles underlying the preparation of accounting information.
- elobrate the principles used in recording business transactions and assess the prepared financial statements.
- analyze the use of accounting information for decision-making, planning and control.

Support and Contact Details

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Assessment

Assessment Methods and Types:

TASKS	PERCENTAGE
Mid-term Examination	15%
Individual assignment	20%
Group assignment	25%
Final Examination	40%

Formative Assessment

1. The different roles of accounting and its relationship to shareholder value and business structure
   Knowledge check activity

2. Measuring and reporting financial performance: the balance sheet and the profit and loss account
   Knowledge check activity
   Individual assignment (20%)

3. Management control and the use of budgets
   Knowledge check activity

4. The role of accounting information in marketing, operating, banking and finance and accounting decisions
   Knowledge check activity
   Group assignment (25%)

5. Strategic investment decisions
   Knowledge check activity
   Discussion sessions

6. The management of working capital
   Knowledge check activity
   Discussion sessions

Summative Assessment

1. The different roles of accounting and its relationship to shareholder value and business structure
   Mid-term Examination (5%)

2. Measuring and reporting financial performance: the balance sheet and the profit and loss
   Mid-term Examination (5%)

3. Management control and the use of budgets
   Mid-term Examination (5%)

4. The role of accounting information in marketing, operating, banking and finance and accounting decisions
   Final Examination (10%)

5. Strategic investment decisions & The management of working capital
   Final Examination (20%)

6. Sources of finance & financial markets
   Final Examination (10%)

Criteria assessment for Case Study report File

You will be given a set of questions which highlighted the current issue in relevant field. You need to do critical analysis on the subject and submit individual report based on your findings.

Text

Main reference supporting the course:

Collier, P. (2015) Accounting for managers: Interpreting accounting information for decision-making. 5th ed. John Wiley & Sons.

Additional reference(s):

Higgins, Robert C. (2016) Analysis for Financial Management. 11th ed. McGraw Hill International Edition.
Gibson, C.H. (2013) Financial Reporting and Analysis. 13th ed. Cengage.

Noreen, E., Brewer, P. and Garrison, R. (2017) Managerial Accounting for Managers. 4th ed. McGraw Hill Education.

Topic 1: The different roles of accounting and its relationship to shareholder value and business structure.

: https://www.youtube.com/watch?v=kbb8jiWFw1E

Learning Outcomes

By the end of this topic, you will be able to:

1. identify the includes capital, funds, money, and amount.
2. differentiate between accounting and accountability.
3. identify functions of accounting and short history of accounting
4. identify roles of financial and management accounting
5. acknowledge recent developments affecting accountants and non-financial managers; and role and limitation of accounting.

Introduction

This module is included to enable students to master the key issues, the principles and key concepts of financial management. This course provides students to the basic understanding of the nature, purpose and scope of financial management; to introduce the students with financial and management accounting, to provide the exposure to the function of accounting and to equip the students with necessary in managing the accounting.

1.1 Introduction of accounting

Definition of accounting:

‘the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information’
- American Accounting Association -
It can be separated to the below perspectives:

- Accounting as a process – Capturing, recording, summarising, reporting, interpreting
- Economic information - Financial & non-financial
- Decision usefulness - Broad spectrum of users

Definition of accountability:

‘the capacity and willingness to give explanations for conduct, stating how one has discharged one’s responsibilities … an explaining of conduct with a credible story of what happened, and a calculation and balancing of competing obligations, including moral ones’
- Boland & Schultze -

According to Boland & Schultze, accountability entails both a narration of what transpired and a reckoning of money. Accountability to:
i. Shareholders & financiers
ii. Stakeholders (Customers, suppliers, employees, government, society)

Functions of accounting:
i. Scorekeeping
ii. Attention-directing
iii. Problem-solving
iv. Planning
v. Decision-making
vi. Control

Accounting history
- Ancient Egypt (3600BC)
- Maritime trade from Italian city-states (14th century)
  - First book on accounting (1494 by monk Luca Paciolo)
  - First professional accounting body (1581) in Venice
- Industrial Revolution (18th -19th century)
  - Separation of ownership from management
  - Exercising control over managers by absent owners
  - Decentralisation & divisionalisation
  - Financial accounting & management accounting
- Information revolution(20th century)
  - Growth of service industries
  - Knowledge-based economy

SELF CHECK 1.1

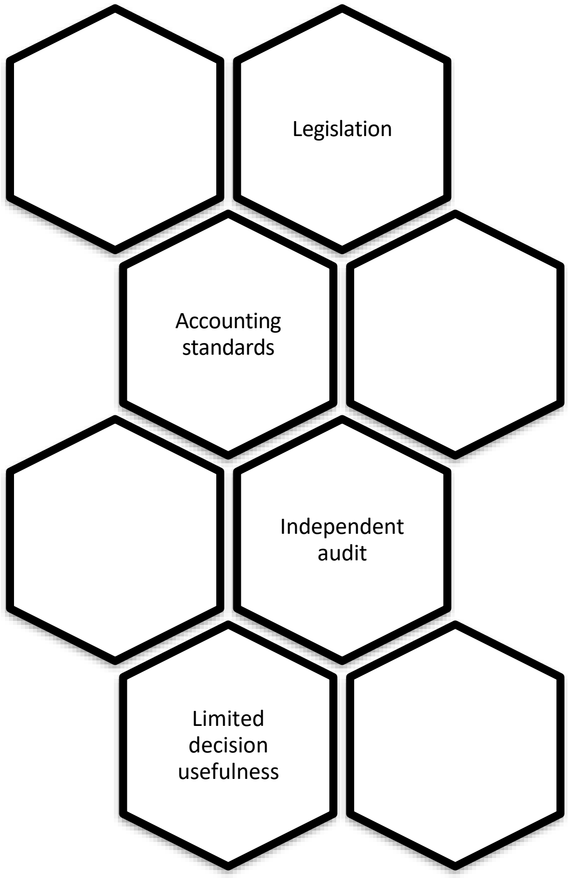
____________ management looks at long term raising of finance and the control of resources.
Fill the missing word.

1.2 Financial accounting versus Management accounting

Financial accounting

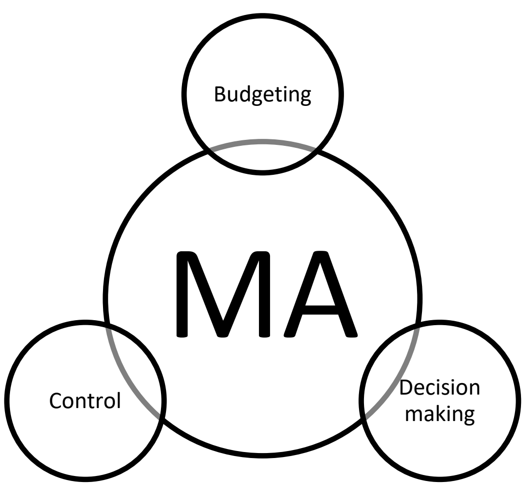
The recording of financial transactions, aimed principally at reporting performance to those outside the organization, with a primary focus on shareholders. Annual Report to shareholders, which comprises:
i. the Statement of Comprehensive Income (or Income Statement);
ii. the Statement of Financial Position (or Balance Sheet);
iii. the Statement of Changes in Equity; and
iv. the Statement of Cash Flows

Characteristics of financial accounting



**Limited decision usefulness for managers because the financial information is due to:
produced only once per year,
highly aggregated and
provides no comparison to target

Management accounting



It provides financial and non-financial information to develop and implement strategy by planning for the future (budgeting), make decisions about products, services, prices and what costs to incur (decision-making) and ensure that plans are put into action and are achieved (control).

A management accounting system must provide timely and accurate information to facilitate efforts to control costs, to measure and improve productivity, and to devise improved production processes. The management accounting system must also report accurate product costs so that pricing decisions, introduction of new products, abandonment of obsolete products, and response to rival products can be made.

Differences between financial accounting & management accounting

Managerial decisions, whether they relate to planning, decision making or control, involve decisions that will ultimately be reported in financial statements and affect shareholder reaction in stock markets. The accounting system that produces financial reports is the same system that managers use for planning, decision making and control.

1.3 Development in accounting

Recent developments in financial accounting

- International Financial Reporting Standards (IFRS)
  Large corporate failures thru increased complexity of business transactions. It emphasis on reporting short-term financial performance to satisfy stock market investors rather than improving the value-added capability of organizations to be successful in the longer term

Some recent developments in management accounting

- Value-based management;
  1. Non-financial performance measurement;
  2. Focus on horizontal business processes, rather than hierarchical reporting;
  3. Quality management and environmental management;
  4. Strategic issues beyond the boundaries of the organization and the annual reporting cycle; and
  5. Lean methods of producing goods and services.

SELF CHECK 1.2
____________ accounting gives information about past events generally. It is required legally and is determined by accounting standards. Fill the missing word.

1.4 Changes affecting accountants and no-financial managers

Changes affecting accountants and non-financial managers
Improvement in information and communications technologies has eliminated many routine accounting processes and expanded information systems beyond accounting to ERPS:
– changed the role of accountants and
– changed the role of non-financial managers.

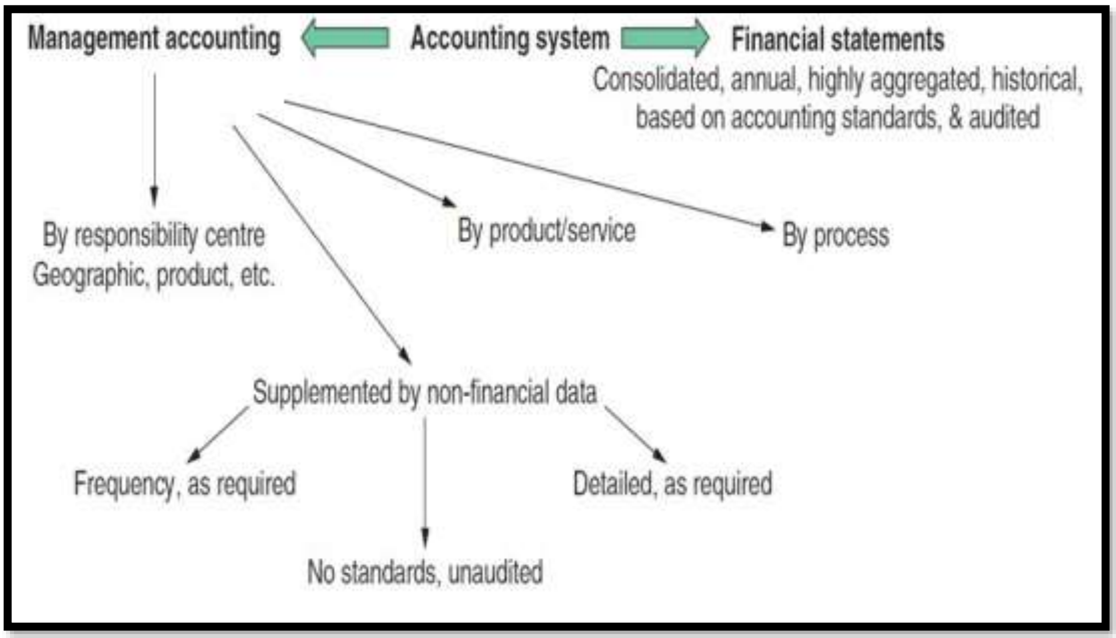


Figure 1.1 The accounting system, financial statements and management accounting

1.5 Role and limitation of accounting

Accounting information provides a window through which the real activities of the organization maybe monitored, but it should be noted also that other windows are used that do not rely upon accounting information (Otley and Berry, 1994).

Role of accounting
Internal Management Accounting

Managerial accounting produces internal reports that are designed for management and are used for decision-making. These reports are modified and adapted to the specific purposes and needs of individual managers and are not usually released to parties outside the company.

A few examples of management accounting reports are aging of accounts receivable, inventory levels, monthly sales and status of accounts payable. Internal accounting reports are also used for the preparation of budgets and forecasts.

Accounting Data for Decision-Making

Running a business requires accurate data about the company's assets, liabilities, profits and cash position. Accounting provides this crucial information. Accounting plays a significant role in evaluating the viability of investments. Proper consideration of an investment demands a careful analysis of costs and projections of expectations for future cash flows. Certain criteria, such as determining hurdles to return on investment, must be met.

Consider the decision managers often face of whether to invest in a new plant or expand the existing facilities. A choice might be to invest $1 million in a new production facility or spend $300,000 to expand a production line. Each alternative will have different cash outflows in the beginning and varying future cash inflows. Each approach will have a different return on investment. So, which one should management choose? The company's accountants will analyze the figures for each investment, calculate the rate of return for each project and present their findings to management.

This is a situation where accounting procedures produce the relevant financial data that management needs to make intelligent decisions. They also have to explore the various ways to finance these investments. Decisions must always be backed up with valid facts and figures.

Accounting for Government Regulations

Businesses must comply with government regulations and pay taxes on corporate income, Social Security taxes and sales. Accountants make sure the filings are accurate and on time. Any mistakes made when reporting income can result in fines and penalties.

Accounting for Planning

Successful organizations create plans to achieve their objectives. These plans include cash flow projections, sales planning, purchases of fixed assets and projecting inventory levels. An accounting analysis of historical data will provide the basis for making forecasts and developing plans to meet those targets.

Using Accounting Data for Budgeting

Budgets are essential to running a successful business. Accounting uses historical data to form the basis for future budgets and cost controls. With this information, managers can prepare overhead expense budgets and sales plans, and create cash flow projections. Then they monitor the regular accounting reports to make sure costs stay within the budgets.

Cost Accounting for Products

Manufacturing companies use cost accounting to calculate the cost of making products, determine break-even sales volumes and set optimum inventory levels. Managers need to know how much it costs to make their products to develop pricing strategies that allow the company to make a reasonable profit

An important responsibility of management is to control costs. However, to do this, managers must have predetermined standard costs of operations to use as yardsticks for measurement.

Limitation of accounting

1. Recording only monetary items

As per accounting principles, only the events measurable in terms of money are recorded in the books of accounts. But events of great importance, if not measurable in terms of money, are not accounted for. For that reason, recorded accounting information fails to exhibit the exact financial position of a business concern.

2. Time Value of Money

Under the accounting system, money value is treated constantly. But the value of money always changes due to inflation. Under existing accounting systems, accounts are maintained considering historical cost ignoring current changed value. As a result, the accounts maintained fail to exhibit the exact financial position of a business concern.

3. Recommendation of alternative methods

There exists an application of alternative methods in determining depreciation of assets and valuation of stock etc. Information regarding the activities of the business is expressed in a misleading way if an alternative method is used to achieve a particular object.

4. Restrain of Accounting Principles

Exhibited accounting information cannot always exhibit a true and fair picture of a business concern owing to limitations of the accounting principles used. For example, Fixed assets are shown after deducting depreciation. In the case of inflation, the value of fixed assets shown in the accounts does not correspond to the real position.

5. Recording of past events

Accounting past events are accounted for. But naturally, there is no system of recording events that may occur in the future.

6. Allocation of problem

The allocation process is an important problem in the accounting system. The value of fixed assets is exhausted, charging depreciation for the allocated period. The useful life of fixed assets is fixed up hypothetically, which does not stand accurately in most cases.

7. Maintaining secrecy

Secrecy cannot be ensured for the involvement of many employees in accounting work, although maintaining secrecy is very important.

8. The tendency for secret reserves

Often management creates secret reserves intentionally by increasing or decreasing assets and liabilities for which the total financial picture of an organization is not reflected.

9. Importance of form over substance

At the time of preparing accounts for a particular period, the emphasis is laid on the form, table, etc. instead of giving importance to an exhibition of substantial information. As per Company Act, preparation of the balance sheet in the prescribed form is mandatory. Although there are some limitations in the present accounting system, accounting in the present-day world has generally been accepted as a recognized profession. Efforts are on throughout the world to overcome these limitations. Economic activities of any society without accounting are neither possible nor legal.

Points to Ponder/Takeaways

Financial Planning
Management need to ensure that enough funding is available at the right time to meet the needs of the business.

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

Financial Decision-making
The key aspects of financial decision-making relate to investment, financing and dividends

References

Collier, P. (2015) Accounting for managers: Interpreting accounting information for decision-making. 5th ed. John Wiley & Sons. Chapter 2, (pg. 19 - 31).

Topic 2: Measuring and reporting financial performance: the balance sheet and the profit and loss account.

Learning Outcomes

By the end of this topic, you will be able to:

- identify the capital and product markets and shareholder value, strategy & accounting;
- apply the company regulation & corporate governance by identifying risk, internal & accounting in critical perspective.

Introduction

The focus of shareholder wealth is to obtain funds at competitive rates from capital markets and invest those funds to exploit imperfections in product markets. Where this takes place, shareholder wealth is increased through dividends and increases in the share price.

2.1 Capital markets

Capital market consist equity and debt, where cost of capital consists:

- Debt: interest rate
- Equity: dividend & capital growth
- Weighted average cost of capital (WACC)

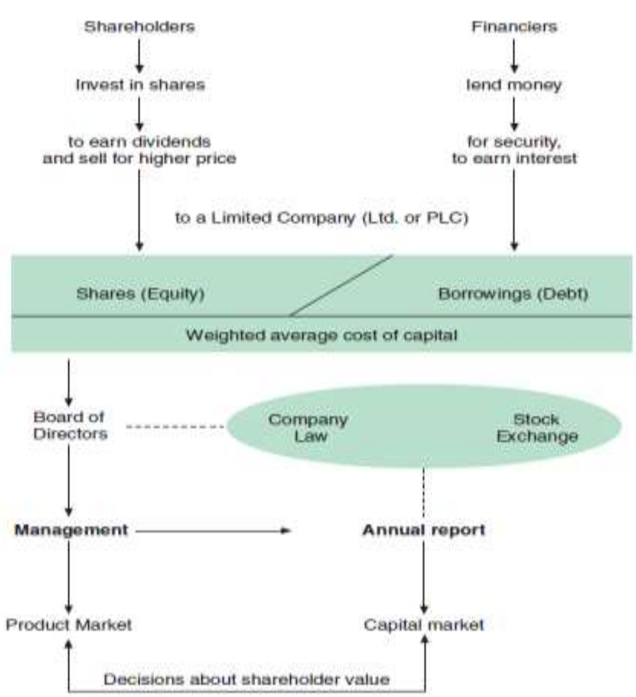


Figure 2.1 Capital and product market structure and interaction.

2.2 Capital markets

Shareholder value is the primary goal of every business

Total shareholder return

- Dividends + increase in share price as a % of initial investment

Market value added

- Market capitalization minus capital invested

Shareholder value added

- Increase in shareholder value over time based on discounted future cash flows

Economic value added (EVA™)

- Economic profits generated by a business: net profit less the cost of capital

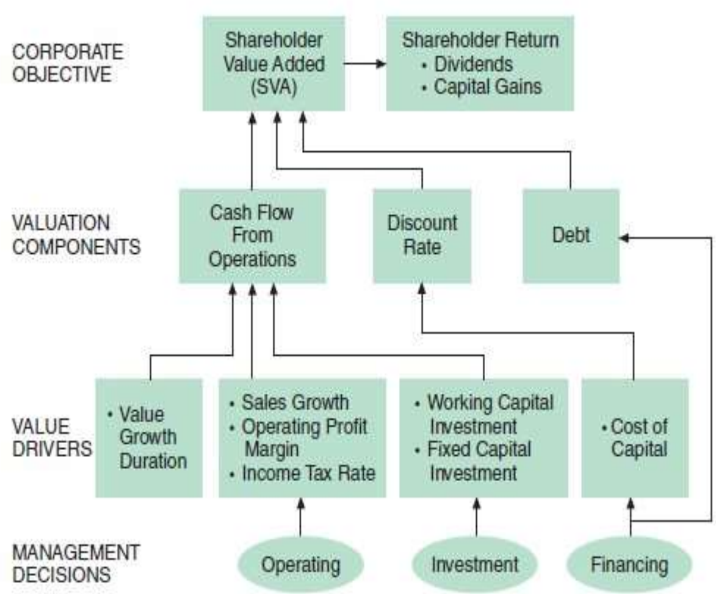


Figure 2.2 The shareholder value network.

2.3 Role of director

- Under Companies legislation, the financial statements of a company are the responsibility of directors, not managers or auditors.
- Directors are responsible for keeping proper accounting records which disclose with reasonable accuracy the financial position of the company at any time and to ensure that financial statements comply with the Companies Act.
- They are also responsible for safeguarding the company's assets and for taking reasonable steps to prevent and detect fraud

Audit

A periodic examination of the accounting records of a company carried out by an independent accountant to ensure that those records have been properly maintained and that the financial statements which are drawn up from those records present a true and fair view. Auditors provide an opinion on the financial statements. Role of audit committee of the Board

Stock Exchange Listing Rules

- Stock Exchanges provide a market for buyers and sellers
- Listing Rules set out mandatory standards for any company wishing to list its shares or securities for sale to the public
- Listing Rules are aimed at protecting investors and maintaining standards of transparency, conduct, shareholder rights and due diligence.
- Rules cover, for example:
  i. the contents of a prospectus on an initial public offering (IPO) of shares, and
  ii. the disclosure of price-sensitive information, and
  iii. communications on new share offers, rights issues, and potential or actual takeover bids for the company.

2.4 Risk management & internal control

UK Corporate Governance Code requires Boards to institute a system of internal control to safeguard shareholders' investment and the company's assets, based on the organization's risk appetite and the identification and assessment of risks facing the organization.

Internal control is the whole system of internal controls, financial and otherwise, established in order to provide reasonable assurance of effective and efficient operation, internal financial control and compliance with laws and regulations.

SELF CHECK 2.1

Which of the following would you expect to be the responsibility of financial management?

A. Producing annual accounts
B. Producing monthly management accounts
C. Advising on investment in non-current assets
D. Deciding pay rates for staff

Points to Ponder/Takeaways

Financial Management

Looks at long term raising of finance and the control of resources.

Financial accounting

Gives information about past events generally. It is required legally and is determined by accounting standards. Looks at the business as a whole.

References

Higgins, Robert C. (2016) Analysis for Financial Management. 11th ed. McGraw Hill International Edition. Chapter 4 (pg. 51 - 67).

Topic 3: Management control and the use of budgets

Learning Outcomes

By the end of this topic, you will be able to:

1. explain of the importance of budgetary control in marketing as a key marketing control technique.
2. identify the advantages and disadvantages of budgeting.
3. prepare methods for preparing budgets.
4. clarify the uses of budgets.

Introduction

The topic explain of all business activities, budgeting is one of the most important and, therefore, requires detailed attention. The chapter looks at the concept of responsibility centres, and the advantages and disadvantages of budgetary control. It then goes on to look at the detail of budget construction and the use to which budgets can be put. Like all management tools, the chapter highlights the need for detailed information, if the technique is to be used to its fullest advantage.

3.1 Budgetary control methods

a) Budget:

· A formal statement of the financial resources set aside for carrying out specific activities in a given period of time.
· It helps to co-ordinate the activities of the organisation.

An example would be an advertising budget or sales force budget.

b) Budgetary control:

· A control technique whereby actual results are compared with budgets.
· Any differences (variances) are made the responsibility of key individuals who can either exercise control action or revise the original budgets.

Budgetary control and responsibility centres;

These enable managers to monitor organisational functions.

A responsibility centre can be defined as any functional unit headed by a manager who is responsible for the activities of that unit.

There are four types of responsibility centres:

a) Revenue centres
   Organisational units in which outputs are measured in monetary terms but are not directly compared to input costs.

b) Expense centres

Units where inputs are measured in monetary terms but outputs are not.

c) Profit centres

Where performance is measured by the difference between revenues (outputs) and expenditure (inputs). Inter-departmental sales are often made using "transfer prices".

d) Investment centres

Where outputs are compared with the assets employed in producing them, i.e. ROI.

Advantages of budgeting and budgetary control

There are a number of advantages to budgeting and budgetary control:

· Compels management to think about the future, which is probably the most important feature of a budgetary planning and control system. Forces management to look ahead, to set out detailed plans for achieving the targets for each department, operation and (ideally) each manager, to anticipate and give the organisation purpose and direction.
· Promotes coordination and communication.

· Clearly defines areas of responsibility. Requires managers of budget centres to be made responsible for the achievement of budget targets for the operations under their personal control.

· Provides a basis for performance appraisal (variance analysis). A budget is basically a yardstick against which actual performance is measured and assessed. Control is provided by comparisons of actual results against budget plan. Departures from budget can then be investigated and the reasons for the differences can be divided into controllable and non-controllable factors.

· Enables remedial action to be taken as variances emerge.

· Motivates employees by participating in the setting of budgets.

· Improves the allocation of scarce resources.

· Economises management time by using the management by exception principle.

Problems in budgeting

Whilst budgets may be an essential part of any marketing activity they do have a number of disadvantages, particularly in perception terms.

· Budgets can be seen as pressure devices imposed by management, thus resulting in:
  a) bad labour relations
  b) inaccurate record-keeping.

· Departmental conflict arises due to:
  a) disputes over resource allocation
  b) departments blaming each other if targets are not attained.

· It is difficult to reconcile personal/individual and corporate goals.

· Waste may arise as managers adopt the view, "we had better spend it or we will lose it". This is often coupled with "empire building" in order to enhance the prestige of a department.

Responsibility versus controlling, i.e. some costs are under the influence of more than one person, e.g. power costs.

· Managers may overestimate costs so that they will not be blamed in the future should they overspend.

Characteristics of a budget

A good budget is characterised by the following:

- Participation: involve as many people as possible in drawing up a budget.
- Comprehensiveness: embrace the whole organisation.
- Standards: base it on established standards of performance.
- Flexibility: allow for changing circumstances.
- Feedback: constantly monitor performance.
- Analysis of costs and revenues: this can be done on the basis of product lines, departments or cost centres.

Budget organisation and administration:

In organising and administering a budget system the following characteristics may apply:

a) Budget centres: Units responsible for the preparation of budgets. A budget centre may encompass several cost centres.

b) Budget committee: This may consist of senior members of the organisation, e.g. departmental heads and executives (with the managing director as chairman). Every part of the organisation should be represented on the committee, so there should be a representative from sales, production, marketing and so on. Functions of the budget committee include:

   - Coordination of the preparation of budgets, including the issue of a manual

- Issuing of timetables for preparation of budgets
- Provision of information to assist budget preparations
- Comparison of actual results with budget and investigation of variances.

c) Budget Officer: Controls the budget administration The job involves:
- liaising between the budget committee and managers responsible for budget preparation
- dealing with budgetary control problems
- ensuring that deadlines are met
- educating people about budgetary control.

d) Budget manual:

This document:
- charts the organisation
- details the budget procedures
- contains account codes for items of expenditure and revenue
- timetables the process
- clearly defines the responsibility of persons involved in the budgeting system.

Budget preparation

Firstly, determine the principal budget factor. This is also known as the key budget factor or limiting budget factor and is the factor which will limit the activities of an undertaking. This limits output, e.g. sales, material or labour.

a) Sales budget: this involves a realistic sales forecast. This is prepared in units of each product and also in sales value. Methods of sales forecasting include:
- sales force opinions
- market research
- statistical methods (correlation analysis and examination of trends)
- mathematical models.

In using these techniques consider:
- company's pricing policy
- general economic and political conditions
- changes in the population
- competition
- consumers' income and tastes
- advertising and other sales promotion techniques
- after sales service
- credit terms offered.

b) Production budget: expressed in quantitative terms only and is geared to the sales budget. The production manager's duties include:
- analysis of plant utilisation
- work-in-progress budgets.

If requirements exceed capacity he may:
- subcontract

- plan for overtime
- introduce shift work
- hire or buy additional machinery
- The materials purchases budget's both quantitative and financial.

c) Raw materials and purchasing budget:
- The materials usage budget is in quantities.
- The materials purchases budget is both quantitative and financial.

Factors influencing a) and b) include:
- production requirements
- planning stock levels
- storage space
- trends of material prices.

d) Labour budget: is both quantitative and financial. This is influenced by:
- production requirements
- man-hours available
- grades of labour required
- wage rates (union agreements)
- the need for incentives.

e) Cash budget: a cash plan for a defined period of time. It summarises monthly receipts and payments. Hence, it highlights monthly surpluses and deficits of actual cash. Its main uses are:

- to maintain control over a firm's cash requirements, e.g. stock and debtors
- to enable a firm to take precautionary measures and arrange in advance for investment and loan facilities whenever cash surpluses or deficits arises

- to show the feasibility of management's plans in cash terms

- to illustrate the financial impact of changes in management policy, e.g. change of credit terms offered to customers.

Receipts of cash may come from one of the following:
- cash sales
- payments by debtors
- the sale of fixed assets
- the issue of new shares
- the receipt of interest and dividends from investments.

Payments of cash may be for one or more of the following:
- purchase of stocks
- payments of wages or other expenses
- purchase of capital items
- payment of interest, dividends or taxation.

Steps in preparing a cash budget

i. Step 1: set out a pro forma cash budget month by month. Below is a suggested layout.

	Month 1	Month 2	Month 3
Cash receipts			
Receipts from debtors			
Sales of capital items			
Loans received			
Proceeds from share issues			
Any other cash receipts			
Cash payments			
Payments to creditors			
Wages and salaries			
Loan repayments			
Capital expenditure			
Taxation			
Dividends			
Any other cash expenditure			
Receipts less payments			
Opening cash balance b/f	W	X	Y
Closing cash balance c/f	X	Y	Z

Figure 4.1: Cash budget format

ii. Step 2: sort out cash receipts from debtors

iii. Step 3: other income

iv. Step 4: sort out cash payments to suppliers

v. Step 5: establish other cash payments in the month

Operating budget vs Financial budget

OPERATING BUDGET	FINANCIAL BUDGET
consists of:-	consists of
Budget P/L acc: get:	Cash budget
Production budget	Balance sheet
Materials budget	Funds statement
Labour budget	
Admin. budget	
Stocks budget	

Figure 4.2: Difference between operating and financial budget

Reporting back

During the year the management accountant will prepare statements, as quickly as possible after each operating period, in our example, each quarter, setting out the actual operating costs against the budgeted costs. This statement will calculate the difference between the 'budgeted' and the 'actual' cost, which is called the 'variance'.

There are many ways in which management accounts can be prepared. To continue with our example of harvesting on the sugar cane farm, management accounts at the end of the third quarter can be presented as shown in figure 4.6.

Item Harvesting	3rd quarter			Year to date		
	Actual	Budget	Variance	Actual	Budget	Variance
Labour						
- Cutting	12,200	12,000	(200)	19,060	18,750	(310)
- Sundry	742	1,125	383	1,584	1,875	291
Tractors	9,375	8,250	(1,125)	13,500	12,975	(525)
Cane trailers	1,678	2,400	722	2,505	3,750	1,245
Imp & sundries	4,270	4,000	(270)	6,513	6,250	(263)
	28,265	27,775	(490)	43,162	43,600	438

Figure 4.3 Management accounts - actual costs against budget costs Management accounts for sugar cane farm 3rd quarter 19X4

Here, actual harvesting costs for the 3rd quarter are RM28,265 against a budget of RM27,775 indicating an increase of RM490 whilst the cumulative figure for the year to date shows an overall saving of RM438. It appears that actual costs are less than budgeted costs, so the harvesting operations are proceeding within the budget set and satisfactory. However, a further look may reveal that this may not be the case. The budget was based on a cane tonnage cut of 16,000 tonnes in the 3rd quarter and a cumulative tonnage of 25,000. If these tonnages have been achieved then the statement will be satisfactory. If the actual production was much higher than budgeted then these costs represent a very considerable saving, even though only a marginal saving is shown by the variance. Similarly, if the actual tonnage was significantly less than budgeted, then what is indicated as a marginal saving in the variance may, in fact, be a considerable overspending.

Price and quantity variances

Just to state that there is a variance on a particular item of expenditure does not really mean a lot. Most costs are composed of two elements - the quantity used and the price per unit. A variance between the actual cost of an item and its budgeted cost may be due to one or both of these factors. Apparent similarity between budgeted and actual costs may hide significant compensating variances between price and usage.

For example, say it is budgeted to take 300 man days at RM3.00 per man day - giving a total budgeted cost of RM900.00. The actual cost on completion was RM875.00, showing a saving of

RM25.00. Further investigations may reveal that the job took 250 man days at a daily rate of RM3.50 - a favourable usage variance but a very unfavourable price variance. Management may therefore need to investigate some significant variances revealed by further analysis, which a comparison of the total costs would not have revealed. Price and usage variances for major items of expense are discussed below.

Labour

The difference between actual labour costs and budgeted or standard labour costs is known as direct wages variance. This variance may arise due to a difference in the amount of labour used or the price per unit of labour, i.e. the wage rate. The direct wages variance can be split into:

i. Wage rate variance: the wage rate was higher or lower than budgeted, e.g. using more unskilled labour, or working overtime at a higher rate.
ii. ii) Labour efficiency variance: arises when the actual time spent on a particular job is higher or lower than the standard labour hours specified, e.g. breakdown of a machine.

Materials

The variance for materials cost could also be split into price and usage elements:

i. Material price variance: arises when the actual unit price is greater or lower than budgeted. Could be due to inflation, discounts, alternative suppliers etc.
ii. Material quantity variance: arises when the actual amount of material used is greater or lower than the amount specified in the budget, e.g. a budgeted fertiliser at 350 kg per hectare may be increased or decreased when the actual fertiliser is applied, giving rise to a usage variance.

Overheads

Again, overhead variance can be split into:

i. Overhead volume variance: where overheads are taken into the cost centres, a production higher or lower than budgeted will cause an over-or under-absorption of overheads.
ii. Overhead expenditure variance: where the actual overhead expenditure is higher or lower than that budgeted for the level of output actually produced.

Calculation of price and usage variances

The price and usage variance are calculated as follows:

Price variance = (budgeted price - actual price) X actual quantity
Usage variance = (budgeted quantity - actual quantity) X budgeted price

3.2 Management action and cost control

Producing information in management accounting form is expensive in terms of the time and effort involved. It will be very wasteful if the information once produced is not put into effective use.

There are five parts to an effective cost control system. These are:

a) preparation of budgets
b) communicating and agreeing budgets with all concerned

c) having an accounting system that will record all actual costs

d) preparing statements that will compare actual costs with budgets, showing any variances and disclosing the reasons for them, and

e) taking any appropriate action based on the analysis of the variances in d) above.

Action(s) that can be taken when a significant variance has been revealed will depend on the nature of the variance itself. Some variances can be identified to a specific department and it is within that department's control to take corrective action. Other variances might prove to be much more difficult, and sometimes impossible, to control.

Variances revealed are historic. They show what happened last month or last quarter and no amount of analysis and discussion can alter that. However, they can be used to influence managerial action in future periods.

3.3 Zero base budgeting (ZBB)

After a budgeting system has been in operation for some time, there is a tendency for next year's budget to be justified by reference to the actual levels being achieved at present. In fact this is part of the financial analysis discussed so far, but the proper analysis process takes into account all the changes which should affect the future activities of the company. Even using such an analytical base, some businesses find that historical comparisons, and particularly the current level of constraints on resources, can inhibit really innovative changes in budgets. This can cause a severe handicap for the business because the budget should be the first year of the long range plan. Thus, if changes are not started in the budget period, it will be difficult for the business to make the progress necessary to achieve longer term objectives.

One way of breaking out of this cyclical budgeting problem is to go back to basics and develop the budget from an assumption of no existing resources (that is, a zero base). This means all resources will have to be justified and the chosen way of achieving any specified objectives will have to be compared with the alternatives. For example, in the sales area, the current existing field sales force will be ignored, and the optimum way of achieving the sales objectives in that particular market for the particular goods or services should be developed. This might not include any field sales force, or a different-sized team, and the company then has to plan how to implement this new strategy.

The obvious problem of this zero-base budgeting process is the massive amount of managerial time needed to carry out the exercise. Hence, some companies carry out the full process every five years, but in that year the business can almost grind to a halt. Thus, an alternative way is to look in depth at one area of the business

SELF CHECK 3.1

Diy Sdn Bhd sells one product, in the year 2010, his budget income statement shows the following:

- Sales; 5,000 units at RM2 per unit
- Cost; Fixed cost RM4,000 will remain constant during the year
- Variable Cost; RM1 per unit

The management of the company has concluded that the budget does not meet the company's profit so they are considering 3 options.

- Option A, Increase price by 10%
- Option B, Increase sales volume by 105
- Option C, Increase price by 10% and volume by 5% and a fixed cost of RM100

Required

Decide for Diy Sdn Bhd the alternative considers.

Points to Ponder/Takeaways

Budgeting
A formal written statement of management's plans for a specified future time period, expressed in financial terms.

Management action and cost control
A business owner compares the company's actual financial results with the budgeted expectations, and if actual costs are higher than planned, management has the information it needs to take action.

Master budget
The master budget is a comprehensive financial planning document. It usually includes all of the lower-level budgets within the operating budget and the financial budget. The operating budget shows the income-generating activities of the firm, including revenues and expenses. The result is a budgeted income statement.

Price and quantity variance
Price variance is the actual unit cost of a purchased item, minus its standard cost, multiplied by the quantity of actual units purchased. Price variance is a crucial factor in budget preparation.
Videos

Responsibility centres
A responsibility center is a functional entity within a business that has its own goals and objectives, dedicated staff, policies and procedures, and financial reports. It is used to give managers specific responsibility for revenues generated, expenses incurred, and/or funds invested.

References
Collier, P. (2015) Accounting for managers: Interpreting accounting information for decision-making. 5th ed. John Wiley & Sons. Chapter 16 (pg. 335 -354).

Topic 4: The role of accounting information in marketing, operating, banking and finance and accounting decisions

Learning Outcomes

By the end of this topic, you will be able to:

1. identify accounting and management control systems.
2. classify cybernetic forms of control and non-financial performance measurement
3. recognize theoretical framework in accounting decision.

Introduction

Financial management "is an area of financial decision-making, harmonizing individual motives and enterprise goals. Financial Management is mainly concerned with the effective funds management in the business. In simple words, Financial Management as practiced by business firms can be called as Corporation Finance or Business Finance.

4.1 Overview

- Accounting & information systems
- Data collection
- Types of Information Systems
- Business processes
- Internal controls
- Developing information systems

4.2 Information systems (IS)

- A system that collects information and presents it to management
    - Data is raw. Information is data made usable by summarisation/ analysis
- IS strategy
    - sets out the long term information requirements of the organisation consistent with its strategy & provides 'umbrella' for the information technologies used

4.3 Information technology (IT)

- IT strategy
    - Defines the specific systems that are required to satisfy the information needs of the organisation – hardware, software & operating systems
- Information management (IM) strategy
    - Ensuring that information is available to users
        - Databases, data warehouses, reporting systems, etc.

Accounting information system (AIS)

- An AIS uses technology to capture, store, process, and report accounting information
    - Requirements: Reliable, timely, accurate, complete, concise, understandable

– Benefits: improved decision making, customer service, product/service quality, productivity, reduced cost, etc.

Methods of data collection

- Computers have automated routine tasks
- EPOS
- EFTPOS
- E-commerce (B2B, B2C, EDI)
- Capturing transactions (financial & non-financial elements) and the multiple aspects of those transactions

Types of information system

- Transaction processing
- Management information systems (MIS)
- Enterprise resource planning systems (ERP)
    - E.g. SAP, Oracle
- Strategic enterprise management (SEM)
- Decision support systems (DSS)
- Executive Information Systems (EIS)
- Expert systems

4.4 Business processes

- Hierarchical organization structure
    - Specialisation of tasks
        - E.g. Sales, Warehouse, Accounting departments
- Horizontal business process
    - Satisfying customer demand
        - E.g. Order fulfilment, purchasing processes
- Business process Reengineering as 'the fundamental rethinking and radical design of business processes to achieve dramatic improvements in critical contemporary measures of performance, such as cost, quality, service, and speed' (Hammer & Champy, 1993)

Business process illustration

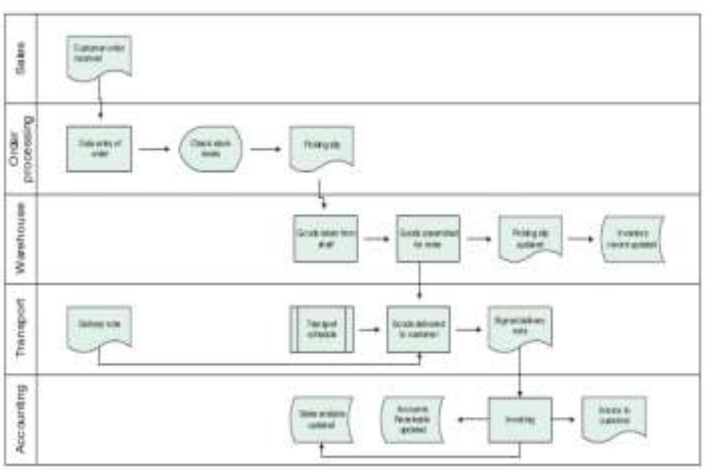


Figure 5.1: Customer order processing

4.5 Internal control

- The whole system of controls, financial and otherwise, established in order to provide reasonable assurance of effective and efficient operation; internal financial control; and compliance with laws and regulations (CIMA)
- Internal controls for information systems
- Security controls
  - To prevent unauthorised access, modification or destruction of data
    - Recruitment, training, supervision
    - Personnel: separation of duties
    - Access to computers and data
    - Software authorisation

Internal controls for information systems

- Application controls
  - To prevent, detect and correct transaction processing errors
    - Input, Processing & Output controls for each application
- Network controls
    - Firewalls, data encryption, etc
- Contingency controls
    - Backups, business continuity plans

Internal controls for developing information systems

- Steering committee oversight
- Stages
  - Feasibility study
  - Systems design
  - Testing
  - Implementation
- Project management:
  - Project planning
  - Management support
  - Roles & responsibilities
  - Resourcing
  - Quality control
  - Risk management
  - Design & approval
  - Testing & implementation
  - User involvement & training
  - Communication

4.6 Decision Making

Good decision making is rarely done by intuition. Consistently good decisions result from diligent accumulation and evaluation of information. Managerial accounting provides the information needed to fuel the decision-making process. Managerial decisions can be categorized according to three interrelated business processes: planning, directing, and controlling. Correct execution of each of these activities culminates in the creation of business value. Conversely, failure to plan, direct, or control is a road map to failure. The central theme is this: (1) business value results from good decisions, (2) decisions must occur across a spectrum of planning, directing, and controlling activities, and (3) quality decision making can only consistently occur by reliance on information.

<table>
<tr><td colspan="3" align="center">Management Decisions</td></tr>
<tr><td align="center">Planning</td><td align="center">Directing</td><td align="center">Controlling</td></tr>
<tr><td colspan="3" align="center">Business Value</td></tr>
</table>

SELF CHECK 4.1

Assume that you are a certified management accountant and you are asked by an organization located in Qatar to conduct a professional consultation with regard to one of the following management accounting issues:

- Job-order costing system.
- Overhead cost allocation/assignment in product costing
- Cost management
- Breakeven analysis (cost-volume-profit analysis).
- Customer profitability analysis
- Budgeting
- Variance
- Balanced scorecard
- Accounting for decision making

Points to Ponder/Takeaways

Information systems

Information systems for accounting or broader management information systems

Collection method

Methods of data collection using technology

ERPS

Types of Information Systems, especially ERPS

Internal control

Internal controls for information systems, including new systems development

Managerial decisions

It can be categorized according to three interrelated business processes: planning, directing, and controlling

References

Collier, P. (2015) Accounting for managers: Interpreting accounting information for decision-making. 5th ed. John Wiley & Sons. Chapter 10 (pg. 197 -220).

Topic 5: Strategic investment decisions

Learning Outcomes

By the end of this topic, you will be able to:

- explain accounting & information systems.
- identify data collection in financial management.
- clarify the types of information systems and business processes
- justify internal controls in developing information systems

Introduction

Finance plays a key role in the part of economic and business activities of the country. Systematic and efficient flow of finance is needed to efficient and effective management of the business concern. Arrangement of finance to required business concern, should be properly maintained and channelised through regulated institutions and markets. In Malaysia, with the effect of the new economic policy, emerging needs of financial institution and markets should be looked after. Malaysian financial system has developed constantly and successfully to infuse the new blood to the economic development of the nation. Hence, the economic growth and development is purely based on the regulated and well established financial system of the country.

5.1 Investment Decision Analysis

The investment decision process:

- Generate cash flow forecasts for the projects,
- Determine the appropriate opportunity cost of capital,
- Use the cash flows and the cost of capital to computethe relevant investment criteria.

Issues:

- Why use cash flows and not accounting earnings?
  - can we "spend" earnings?
- Which cash flows do we use?
  - total vs. incremental cash flows,
  - how to treat sunk costs.
- Which investment criterion do we use, and why?
  - Net Present Value (NPV),
  - Payback / Discounted payback period
  - Average Accounting Return
  - Internal Rate of Return (IRR)
  - Profitability Index
- Mutually exclusive vs. independent projects.
- Sensitivity analysis.
  - How sensitive are the criterion to changes in key assumptions.

5.2 Earnings vs. Cash Flows

- You cannot spend earnings! Need cash to build a plant,not earnings.
- Earnings can be manipulated by creative accounting.

Classic Example: The movie Forrest Gump (Paramount Pictures, 1994)

- Winston Groom, the author of the book on which the movie is based, was promised 2% of the net income on the movie.
- The movie grossed over $650 million worldwide.
- However, Groom got nothing!
- Paramount reported a $62 million loss on the movie, because of a 32% commission the studio charged the movie to cover costs on future films that might fail!!
- Do you think they didn't make a cash profit on the movie?

So earnings can be what you want them to be, while cash flows are what you receive in your bank account, and arehence much more real and transparent.

5.3 Net Present Value (NPV)

The net present value of a project is the sum of the present values of the expected cash flows on the project (discounted at the cost of capital / hurdle rate for the projects), net of the initial investment.

Advantages:
Cash flow based.

Additivity: The NPVs of individual projects can be added to arrive at the cumulative NPV for the business or division as a whole (NPV(A+B)=NPV(A)+NPV(B)).

NPV uses all cash flows for the project, not just some cash flows upto a particular date.

Accounts for the time value of money, as all cash flows are discounted at the appropriate rate.

Allows for expected term structure and interest rate shifts: NPV can be computed using time-varying discount rates.

Linked to the objective of value maximization: Providesa criterion based on an absolute number that represents the increase (or decrease!) in the value of the firm if the project is accepted.

Biases, limitations, and caveats:

- An absolute criterion, so does not factor in the scale ofthe project.
- Does not control for the life of the project, so when comparing mutually exclusive projects with unequal lives, the NPV rule is biased towards accepting longer-term projects.

5.4 Payback Period

The payback period for a project is the length of time it will take for nominal cash flows from the project to cover the initial investment.

Example: Suppose $ cash flows are:
(-1000, 300, 400, 500, 600)
discount rate is 12% (don’t need it here!)

Then, payback period is between 2 and 3 years, and can be approximated to be 2.6 years assuming uniform cash flows.

Usually, a maximum acceptable payback period is set – projects that payback their initial investment sooner than the maximum are accepted, whereas projects that do not are rejected.

Advantage:

- Simple and easy to compute, so a useful criterion for very frequent, low value decisions (e.g., do I spend $500to get a higher efficiency motor that saves me $20 a month, or just use the existing one?)

Biases, limitations, and caveats:

- Ignores what happens after the initial investment is recouped. This can lead to absurdities – consider two projects: A (-1,000, 300, 400, 300, 10,000) - 3 yrs
  B (-1,000, 500, 500, 100, 100) - 2 yrs
  would you pick B?

- The payback rule breaks down if the investment is spread over time, not in one shot upfront.
- Does not consider the time value of money – no discounting of cash flows – counts cash flows in earlier years the same as cash flows in the later years.
- The choice of a standard for payback period is arbitrary, unlike the NPV approach, where the firm can go to the capital markets to get the discount rate.

5.5 Discounted Payback Period

It is the number of periods at the end of which the discounted cash flows cumulate to cover the initial investment.

Advantages:

- Cash flows are discounted, so accounts for the timevalue of money.

Biases, limitations, and caveats:

- Has all the other disadvantages of the Payback Periodrule.
- Since cash flows have to be discounted, the advantageof simplicity is also lost!

A poor compromise between Payback period method and NPV.

5.6 Average Accounting Return (AAR)

It is the average project earnings (after taxes and depreciation), divided by the average book value of the investment during its life.

Example:

Advantages:

- Not too many! Just that it uses accounting numbers that are readily available.

Disadvantages:

- Uses the wrong numbers – earnings instead of cash flows, and book value of investment instead of market value (which is more realistic).
- No discounting – does not account for time value of money.
- Targeted rate of return is arbitrary.

5.7 Internal Rate of Return (IRR)

The IRR of a project measures the rate of return earned by the project based upon cash flows, allowing for the time value of money.

- IRR is the discount rate that makes the NPV zero.
- Discounted cash flow analog to the accounting rates ofreturn.

Linkage between NPV and IRR: The NPV profile

Measures the sensitivity of the net present value tochanges in the discount rate.

IRR is the point where the NPV profile crosses the x-axis.

Advantages:

- A single number that summarizes the merits of a project, without making assumptions about the discount rate (but we do need the discount rate while using the IRR rule – why?).
- The IRR rule coincides exactly with the NPV rule (except for some cases), so it is (usually) consistent with the objective of value maximization.
- Provides a percentage return, which is often easier to interpret and communicate.

Biases, limitations, and caveats:

- Ignores the issue of scale: tends to bias decision makers towards smaller projects, which are more likely to yield high percentage returns, over larger ones (which one would you pick - $2 after 10 minutes in return for $1 now(100% IRR), or $13 after 10 minutes in return for $10 now(30% IRR)?).

- Lending or borrowing?

Project	C_0	C_1	IRR(%)	NPV at 10%
A	-1,000	1,500	50	364
B	1,000	-1,500	50	-364

The decision rule has to be clarified, depending on the kindof project – whether it is lending (Accept if IRR>hurdle rate) or borrowing (Reject if IRR>hurdle rate).

Multiple Rates of Return:

Consider the project (-1,000, 800, 1,000, 1,300, -2,200)Has two IRRs : 6.60% and 36.55%

If the hurdle rate falls between these two IRRs, the decision on whether or not to take the project will change depending on which IRR is used. Hence, need to look at theNPV profile to make the right decision.

Multiple IRRs:

- The IRR is mathematically the root to the polynomialpresent value equation for cash flows.
- Number of IRRs is equal to the number of sign changesin the project cash flows.
- The general solution to this problem is to use NPVinstead!

5.8 Profitability Index (PI)

It is the NPV of a project divided by the initial investmentin the project – so its is a scaled version of NPV.

Example: Suppose $ cash flows are:
(-1000, 300, 400, 500, 600)
discount rate is 12%.
Then, NPV = $324, PI = 324/1000 = 32.4%

The decision rule:

Accept,	if	PI > cost of capital
Reject,	if	PI < cost of capital

- In most cases, PI and IRR yield similar results (differences are due to different reinvestment rate assumptions).
- Ignores scale issue, as it is a ratio.

A solution to the scale issue: Incremental Cash Flows

Consider two mutually exclusive projects: A: (-1000, 300, 400, 500, 600)

B: (-3000, 700, 900, 1400, 1700)

Then,

	NPV (@12%)	IRR
A	$324	24.9%
B	$419	17.5%

Which one do you accept?

Compute incremental cash flows (B-A):
The incremental project is
(-2000, 400, 500, 900, 1100)
For this incremental project, NPV = $95, IRR = 13.9%

Since both projects are acceptable on a stand-alone basis, we want to know if it is beneficial to invest an additional 2000 in project B, instead of just project A(remember, they are mutually exclusive). The incremental NPV is positive, the incremental IRR > 12% (the hurdle rate), hence the incremental investment is justified, therefore choose project B. Here, using just the IRR would lead to the wrong decision!

NPV vs. IRR – Which one to use?

High IRR Þ "bigger bang for the buck" and more margin for error

High NPV Þ creates more "dollar value"

Under a scenario where capital is limited, and there is uncertainty (which is usually the case!):

- If a business has limited access to capital, has a stream of surplus value projects and faces more uncertainty in its project cash flows, it is much more likely to use IRR as its decision rule
  Small, high-growth companies and private businesses are much more likely to use IRR.

- If a business has substantial funds on hand, access to capital, limited surplus value projects, and more certainty on its project cash flows, it is much more likely to use NPV as its decision rule. As firms go public and grow, they are much more likely to gain from using NPV.

The reason for these differences

- The NPV rule assumes that intermediate cash flows onthe project get reinvested at the hurdle rate (which isbased upon what projects of comparable risk should earn).
- The IRR rule assumes that intermediate cash flows on the project get reinvested at the IRR. Implicit is the assumption that the firm has an infinite stream of projects yielding similar IRRs.
- Conclusion: When the IRR is high (the project is creating significant surplus value) and the project life is long, the IRR will overstate the true return on the project.

The solution?

- Compute a modified internal rate of return (MIRR), explicitly incorporating the desired reinvestment rate assumption.

What do firms actually use?

A survey of some of the largest companies in the US has shown:

Decision Rule	% of firms using as primary decision rule	
	1976	1986
IRR	53.6%	49.0%
Accounting Return	25.0%	8.0%
NPV	9.8%	21.0%
Payback Period	8.9%	19.0%
Profitability Index	2.7%	3.0%

- Surprisingly large number of firms use the paybackperiod, even with all its limitations.
- The use of NPV has increased, while the popularity ofaccounting measures is on the decline.
- Most firms used more than one investment criterion todecide on projects.

Summary: No one technique is perfect. Firms should use one primary technique in decision making, but should supplement it with other techniques, depending on the project and business conditions.

SELF CHECK 5.1

Until recently little attention has been given in Accounting and Finance literature to the problem of linking the results of financial evaluation techniques such as Net Present Value (NPV) and Shareholder Value Analysis (SVA) to managers' cognitive evaluation of strategic factors and the risk profile of projects. Various authors have called for research in this area, but very little has so far been published. This paper reports on a field-based study carried out in the logistics industry. It builds on earlier research, which elicited constructs that managers use to assess project risk using a repertory grid technique. It provides an insight into how a project risk analysis process can be linked with project returns in strategic investment appraisal (SIA) in a divisionalised organisation. An action research approach was taken to develop a decision matrix to link the risk assessment results to expected project returns as an aid to management in strategic investment decision-making.

Identify the role of strategic investment decision.

Points to Ponder/Takeaways

- Information systems for accounting or broader management information systems
- Methods of data collection using technology
- Types of Information Systems, especially ERPS
- Horizontal business processes
- Internal controls for information systems, including new systems development

References

Collier, P. (2015) Accounting for managers: Interpreting accounting information for decision-making. 5th ed. John Wiley & Sons. Chapter 14 (pg. 297 – 313).

Topic 6: The management of working capital

Learning Outcomes

By the end of this topic, you will be able to:

1. explain how the definition of "working capital"
2. understand the working capital concepts
3. discuss how to determine the optimal level of current assets.
4. describe the relationship working capital issues in the management of working capital.
5. explain how to classify working capital according to financing current assets: short-term and long-term mix.
6. describe the combining liability structure and current asset decisions.

Introduction

Working capital is the capital which is needed to meet the day-to-day transaction of the business concern. It may cross working capital and net working capital. Normally working capital consists of various compositions of current assets such as inventories, bills, receivable, debtors, cash, and bank balance and prepaid expenses.

6.1 Working Capital Concepts

Net Working Capital

Current Assets - Current Liabilities.

Gross Working Capital

The firm's investment in current assets.

Working Capital Management

The administration of the firm's current assets and the financing needed to support current assets.

Significance of Working Capital Management

- In a typical manufacturing firm, current assets exceed one-half of total assets.
- Excessive levels can result in a substandard Return on Investment (ROI).
- Current liabilities are the principal source of external financing for small firms.
- Requires continuous, day-to-day managerial supervision.
- Working capital management affects the company's risk, return, and share price.

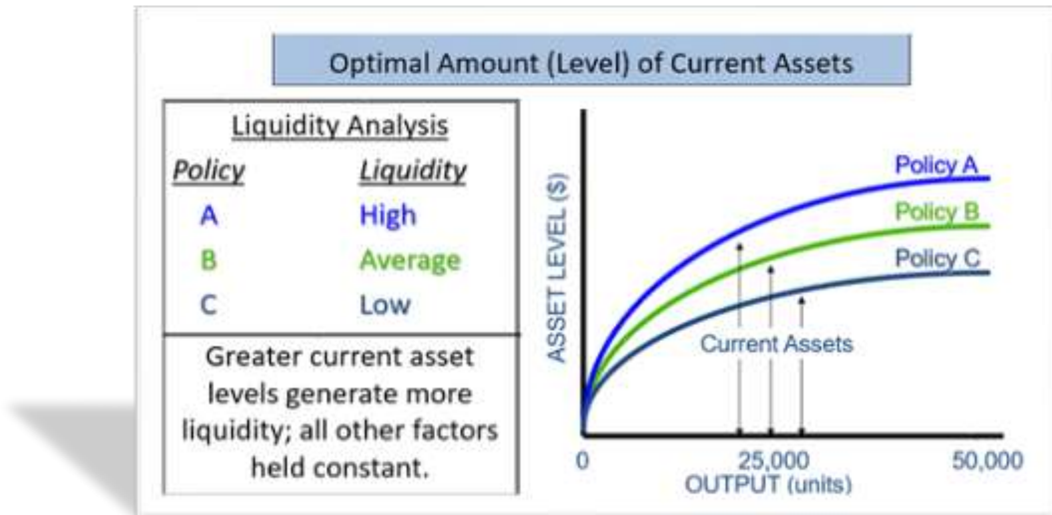
Working Capital Issues

Assumptions

- 50,000 maximum units of production
- Continuous production
- Three different policies for current asset levels are possible

Optimal Amount (Level) of Current Assets

Impact on Liquidity



Impact on Expected Profitability

Optimal Amount (Level) of Current Assets

Return on Investment = Net Profit/Total Assets

Let Current Assets = (Cash + Rec. + Inv.)

Return on Investment = Net Profit/(Current + Fixed Assets)

Impact on Expected Profitability

Profitability Analysis

Policy	*Profitability*
A	Low
B	Average
C	High

As current asset levels decline, total assets will decline and the ROI will rise.

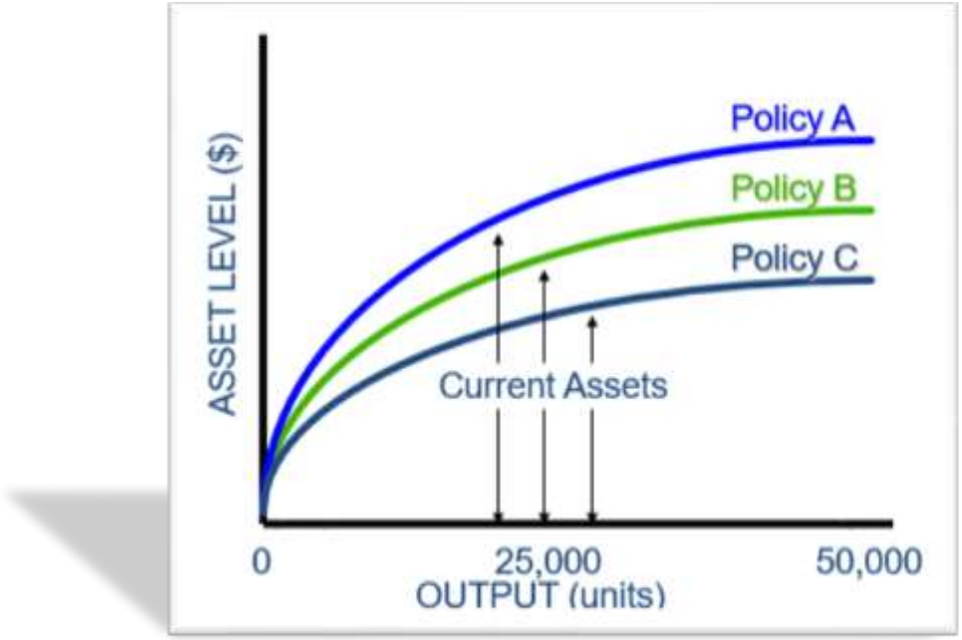


Figure 6.1: Optimal Amount (Level) of Current Assets

Impact on Risk

Optimal Amount (Level) of Current Assets

- Decreasing cash reduces the firm's ability to meet its financial obligations. More risk!
- Stricter credit policies reduce receivables and possibly lose sales and customers. More risk!
- Lower inventory levels increase stockouts and lost sales. More risk!

Impact on Risk

Risk Analysis

Policy	*Risk*
A	Low
B	Average
C	High

Risk increases as the level of current assets are reduced.

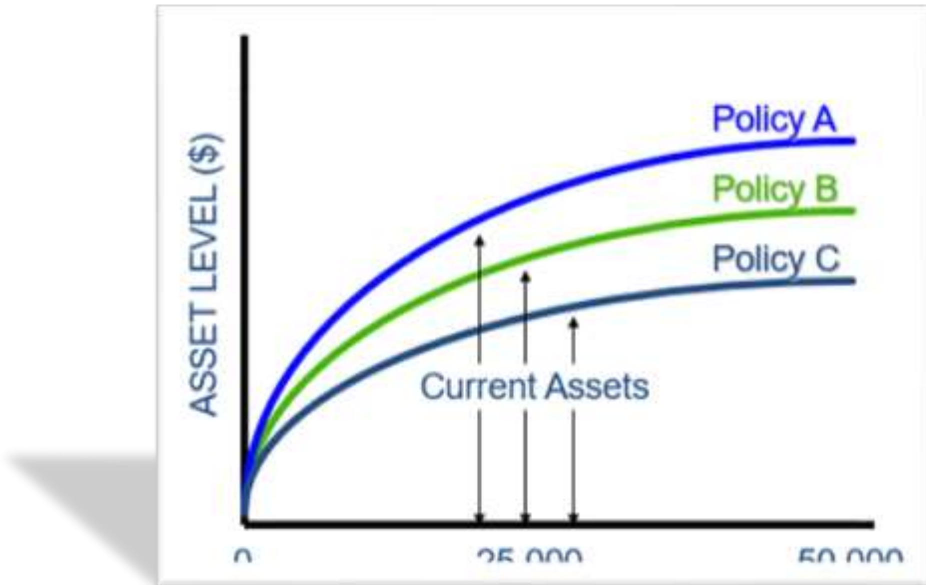


Figure 6.2: Optimal Amount (Level) of Current Assets

SELF CHECK 6.1

If sales are 1,000 and current assets are 200.

What will current assets be if sales become 1,500 and would these be permanent or fluctuating current assets?

300 permanent

200 fluctuating

6.2 Classifications of Working Capital

Time can be separated into:

- Permanent
- Temporary

Permanent Working Capital
The amount of current assets required to meet a firm's long-term minimum needs.

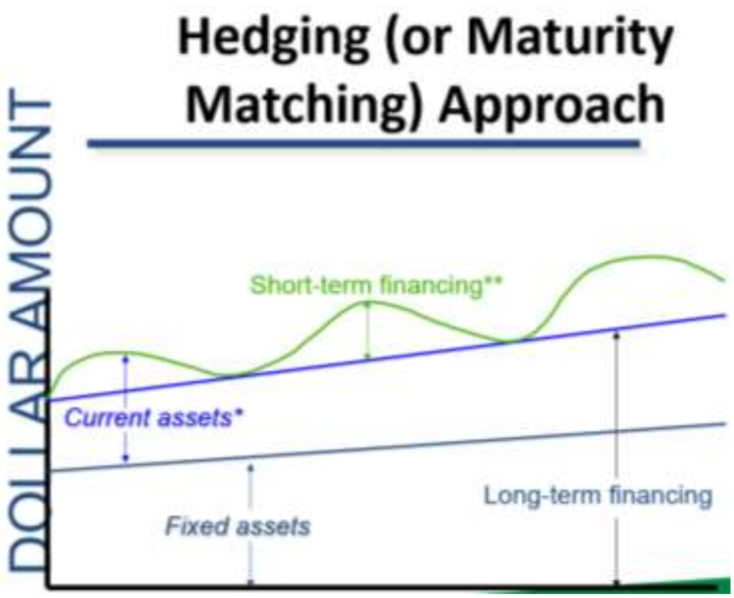
Temporary Working Capital
The amount of current assets that varies with seasonal requirements.

Financing Current Assets: Short-Term and Long-Term Mix

Spontaneous Financing: Trade credit, and other payables and accruals, that arise spontaneously in the firm's day-to-day operations.

- Based on policies regarding payment for purchases, labor, taxes, and other expenses.
- We are concerned with managing non-spontaneous financing of assets.

Hedging (or Maturity Matching) Approach



A method of financing where each asset would be offset with a financing instrument of the same approximate maturity.

Hedging (or Maturity Matching) Approach

* Less amount financed spontaneously by payables and accruals.
** In addition to spontaneous financing (payables and accruals).

SELF CHECK 6.2

More receivables due to an unexpected rise in sales

The receivables would be:

- Fluctuating current assets
- Permanent current assets

6.3 Financing Needs and the Hedging Approach

- Fixed assets and the non-seasonal portion of current assets are financed with long-term debt and equity (long-term profitability of assets to cover the long-term financing costs of the firm).
- Seasonal needs are financed with short-term loans (under normal operations sufficient cash flow is expected to cover the short-term financing cost).

Self-Liquidating Nature of Short-Term Loans

- Seasonal orders require the purchase of inventory beyond current levels.
- Increased inventory is used to meet the increased demand for the final product.
- Sales become receivables.
- Receivables are collected and become cash.
- The resulting cash funds can be used to pay off the seasonal short-term loan and cover associated long-term financing costs.

Risks vs. Costs Trade-Off (Conservative Approach)

- Long-Term Financing Benefits
  - Less worry in refinancing short-term obligations
  - Less uncertainty regarding future interest costs
- Long-Term Financing Risks
  - Borrowing *more than* what is necessary
  - Borrowing at a higher overall cost (usually)
- Result
  - Manager accepts *less* expected profits in exchange for taking *less* risk.

Risks vs. Costs Trade-Off (Conservative Approach)

Firm can reduce risks associated with short-term borrowing by using a larger proportion of long-term financing.

Comparison with an Aggressive Approach

- Short-Term Financing Benefits
  - Financing long-term needs with a lower interest cost than short-term debt
  - Borrowing *only* what is necessary
- Short-Term Financing Risks
  - Refinancing short-term obligations in the future
  - Uncertain future interest costs
- Result
  - Manager accepts *greater* expected profits in exchange for taking *greater* risk.

Firm increases risks associated with short-term borrowing by using a larger proportion of short-term financing.

6.4 Combining Liability Structure and Current Asset Decisions

- The level of current assets and the method of financing those assets are *interdependent*.
- A conservative policy of "high" levels of current assets allows a more aggressive method of financing current assets.
- A conservative method of financing (all-equity) allows an aggressive policy of "low" levels of current assets.

SELF CHECK 6.3

1. When are payables actually NOT a free source of finance?

2. Given the following information:
   a. Inventory 600;
   b. Receivables 400;
   c. Payables 200
   d. Overdraft 8% 400
   e. Long term Loan 10% 1,000

   How much is the cost of financing working capital

Points to Ponder/Takeaways

- The level of current assets and the method of financing those assets are interdependent.
- A conservative policy of “high” levels of current assets allows a more aggressive method of financing current assets.
- A conservative method of financing (all-equity) allows an aggressive policy of “low” levels of current assets.
- Working Capital Concepts
- Working Capital Issues
- Financing Current Assets: Short-Term and Long-Term Mi
- Combining Liability Structure and Current Asset Decisions

References

Collier, P. (2015) Accounting for managers: Interpreting accounting information for decision-making. 5th ed. John Wiley & Sons. Chapter 18 (pg 371 – 386).

Topic 7: Sources of finance & financial markets

: https://www.acowtancy.com/textbook/acca-fm/e3-sources-of-finance-and-their-relative-costs/debt-or-equity/videos

Learning Outcomes

By the end of this topic, you will be able to:

1. clarify working capital concepts
2. identify working capital issues and financing current assets: short-term and long-term mix.
3. explain combining liability structure and current asset decisions.

Introduction

Finance is the lifeblood of business concern, because it is interlinked with all activities performed by the business concern. In a human body, if blood circulation is not proper, body function will stop. Similarly, if the finance not being properly arranged, the business system will stop. Arrangement of the required finance to each department of business concern is highly a complex one and it needs careful decision. Quantum of finance may be depending upon the nature and situation of the business concern. But, the requirement of the finance may be broadly classified into two parts:

i. Long-term Financial Requirements or Fixed Capital Requirement

ii. Short-term Financial Requirements or Working Capital Requirement

7.1 Sources of finance

- All businesses require funding for their activities.
- For example – a loan to purchase a new computer system or a bank overdraft to pay suppliers before the receipt of customers cash.
- Just like people, organizations require a variety of funding for a range of purposes.

Factors to consider when choosing finance:

- A business should match the source of finance to its specific use – in practice this means that a business should secure ***long-term sources of finance*** for long term uses or needs and for more ***short term finance*** immediate needs.
- The cost of the source.
- The organization's objectives.
- The flexibility and availability of the finance, for example, how easy it is to switch from one form of funding to another, or whether a particular form of finance is available for a new business with no trading record.

Factors to consider when choosing finance:

- The impact the new funding would have on the organizations current financial structure, for example, its balance sheet.
- The state of the external environment, for example the economy and consumer trends.
- The type of business structure it is, for example a sole trader or partnership can raise funds from the stock market.

SELF CHECK 7.1

If a company expects a recession ahead is debt more or less likely than equity financing?

Less likely

More likely

7.2 Internal Sources of Finance

There are several sources of internal financefor the business including:

- **Retained Profit**
- **The Sales of Assets**
- **Utilizing working capital more effectively**
- **Depreciation**

Retained Profit

- This is one of the most important sources of business finance.
- It represents the profits generated from sales ***after*** interest payments to lenders, taxes to the government and payments to shareholders in the form of dividends.
- The remaining profit is then retained or put back into the business and available for future spending by the organization.

Advantages of using Retained Profit

- The advantages of retained profit are that there are no associated borrowing costs and that businesses do not see a rise in debt levels (gearing).
- The owners control is not diluted and decisions are not vetted by lenders (banks)

The Disadvantage of using Retained Profit

- The disadvantages are that the owners may take out all the organization's spare cash and there will be no buffer if the business suddenly needs cash or another market opportunity arises.
- Equally some businesses are more focused on investment decisions when borrowing money, but are more lax when using retained profits.
- There may no outsiders to be accountable to – especially small and family run businesses with no outside shareholders.

The Sale of Assets

- Many large retail businesses that own lots of property have decided to sell off their property portfolio and raise fresh expansion capital or cash.
- Supermarkets and banks are examples. They see themselves as retailers not property developers.
- Companies may sell their assets to property development or pension companies and then lease then back for a fixed period of time and rent.

The Advantage of Selling Assets

- The main advantage is having no associated borrowing costs or debts.

Disadvantages of Selling Assets

- The business can only sell off the `family silver` once, so it needs to care what is sells and how wisely it uses its cash.

Sale and Leaseback Deals

- When setting up a sale and leaseback situation, it is imperative that the lease allows the business flexibility, for example, the new landlord wants to sell the site in 10 years time or up the rent above inflation.
- Will there be an adequate notice period in the contract?

7.3 Utilizing Working Capital more effectively

- Working capital is money tied up in the business and used to finance its day to day needs, such as buying raw materials.
- All businesses have a working capital cycle that identifies how this money moves around the business

Working Capital - Manufacturing Case Study

- The first part of the cycle starts with cash being spent on raw materials.
- These materials become our stock, so the cash is now tied up as unsold stock items.
- When the finished items of stock are finally sold to customers, (on credit) these customers owe us money.
- They in effect become the debtors of the business.
- When paid, the debtors cash is returned to the business and the cycle carries on in funding new stock or paying the expenses the business (eg: paying suppliers or reducing our bank deficit.
- If the business is making a profit some of this cash may be kept in the business as retained profit and not spent in the short term.

Reducing our Working Capital Needs

- A possible source of finance is squeezing or reducing our own working capital needs.
- Therefore the cash we need is more efficiently used.
- Eg: IF we minimize our stock levels we reduce the amount of money tied up in stock.

Just in Time Production (JIT)
Reducing Working Capital Needs

- In modern customer manufacturing the concept of producing just in time (JIT) and only to a specific order has grown dramatically.
- Eg: When a customers orders a bed or dining table they may in some cases have to be wait 2 to 4 weeks for delivery.
- This is because some items are not held in stock by the retailer or manufacturer – they are both minimizing their working capital needs and the amount of money tied up in the unsold stock.
- The consumer therefore pays upfront to the retailer and is effect funding the retailing and manufacturing of the product.

Early Payments Incentives Reducing Working Capital Needs

- A business can ask its customers who purchase goods on credit to pay more promptly, by offering a financial incentive.
- Eg: A 5% discount for payment in 14 days and this helps to reduce the funding needs from the bank or shareholders.

Delaying Payments to Creditors Reducing Working Capital Needs

- A business can slow down payment to it suppliers or creditors.
- Therefore a business can use resources for longer without having paid for them.
- Suppliers or creditors are being asked to fund more of our operation.

MRP & MRP2
Reducing Working Capital Needs

- Better management of stock can be done internally and without always affecting delivery dates.
- Better MRP (Material Resource Planning) and MRP2 (Manufacturing Resource Planning) systems are making the ordering of stock materials more efficient.
- These systems reduce the time that stock is left unused and therefore reduce the amount of money tied up in stock.

The <u>Advantages</u> of
Reducing Working Capital Needs

- The advantage of squeezing working capital as a source of finance is that you do not have to ask a bank or shareholders to give you more money and on terms that may be expensive.

The <u>Disadvantages</u> of
Reducing Working Capital Needs

- The disadvantage is that suppliers and customers may not be happy waiting for money or paying upfront for goods, especially when competitors may be able to offer a better delivery schedule for customers or better payment terms to their suppliers.
- Caution has to be exercised and communication with these two stakeholders is paramount.

7.4 Internal Sources of Business Finance

Depreciation

- Depreciation is a reduction in value of our assets, which occurs naturally through wear and tear in the production process of a business.
- Measuring this fall in value over time is not always easy.
- There are two normal methods of calculating the level of asset depreciation:

- ➢ The Straight Line Method
- ➢ Reducing Balance Method.

Straight Line Method of Depreciation
Example
- A machine costs $500,000 to purchase.
- Its useful life in our manufacturing business is 10 years.
- After that we may be able to sell it to a second hand dealer for $50,000. This is called the Residual Value.

Straight Line Method of Depreciation
- The straight line method is easy to calculate and it gives us the same depreciation amount for each year.
- However, the problem here is that with some assets, the drop in value is not constant, but is greater in the earlier years and less in the last years of ownership.
- Assets where this is more common are cars and vans, which lose a high amount of value once they are driven offer the car outlet where they are purchased (except in Venezuela!)

Reducing Balance Method of Depreciation
- The second method of depreciation – the reducing balance method, attempts to take account of this problem and weights the depreciation more heavily in the earlier years.

How is depreciation a source of finance?
(1) By recognizing that assets lose value and by attempting to identify how much each assets falls in value, it is possible to set aside cash year to replace each asset when it is no longer of use to us.
(2) In many countries depreciation is a major tax deduction. Depreciation is recognized as an expense which we can claim to reduce our taxable income.

Other Issues with depreciation:

Inflation
- A major disadvantage is that depreciation does not take into account the fall in purchasing power over time due to inflation.

7.5 External Sources of Finance

(Long Term)
There are four main sources of external finance in the long term:

Share Capital
- **Loan Capital**
- **Venture Capitalists**
- **Grants from Governments & other philanthropic organizations.**

EXTERNAL SOURCES OF FINANCE
Share Capital
- Share capital represents the monies that are put into a company by investors, who are then classified as shareholders.

- Note: Sole Traders and Partnerships don't have shareholders and this is not a relevant source of finance for these organizations.

EXTERNAL SOURCES OF FINANCE
Share Capital

- The original investment by the owners is often used to fund the purchase of the organizations initial assets and sometimes to fund the working capital needs of the business while other funding is organized.
- However, it is a long term source of finance and therefore should be used for long-term needs, such as purchasing machines or computer systems or acquiring businesses.

EXTERNAL SOURCES OF FINANCE
Share Capital

- When a business expands it can ask existing shareholders to put more money into the business and therefore new shares are issued in proportion to the size of the increase in the share capital.
- Note: When people buy and selling existing shares, usually via a stock exchange, this does not help the business with raising new capital, as it is simply swapping ownership between people.

Advantages of Share Capital as a Source of Finance.

- The advantages with this sort of finance are there are no interest payments and so no drain on company profits.
- If existing shareholders increase their investment by buying more share in proportion to the current levels, there is no change in control.
- However, if new shares are bought by new investors that may dilute the control of the original shareholders.

Disadvantages of Share Capital as a Source of Finance.

- The disadvantages are that shareholders may still expect rewards in the form of dividends, and this is paid for from profits.
- However, unlike the arrangement with loan capital, if the business does not make a profit and does not have a reserve of past profits, it cannot be compelled to pay a dividend.

A Share Capital or Debt Capital Tradition

- In countries such as the UK, the amount of share capital used to fund business activities is rather low relative to debt capital.
- This makes UK companies vulnerable to interest rate rises, which can hit profits directly.
- In other countries, (eg: Japan & Germany) there is a tradition of investing in share capital and this makes for a more long term and perhaps more stable financial structure.

EXTERNAL SOURCES OF FINANCE
Debt or Loan Capital

- Funding provided by outside banks and lenders is generally referred to as debt or loan capital.
- It is usually provided for a fixed period of time, with repayments evenly spread out over the length of the loan.
- Interest is paid on the loan at regular intervals, although interest rate holidays (where the lender agrees not to take interest for a short period of time) can be negotiated if the business is struggling to fund the debt.
- Loan capital is provided for more than 1 year and so is a long term form of finance.
- Any loan shorter than 1 year is classified as current liabilities or debt.

<u>The Advantages of Loan Capital</u>

- The advantage of this form of finance is that it is often easier to access and use for specific purposes like buying fixed assets, such as machines or property.
- Payment is spread out over the useful revenue-earning life of the asset.
- If the loan has a fixed interest rate, and interest rates rise in the future, the loan could be a very smart investment.

<u>The Disadvantages of Loan Capital</u>

- The disadvantages is that lenders have to be paid even if the business does not make a profit.
- Any default (not paying the loan on time) can lead to the lender controlling future decision making, in effect they call the shots.
- Equally if the loan is secured against an asset then the asset can be seized if payments are missed.
- If the loan has fixed interest rate, and interest rates fall, the business may find itself with a very undesirable loan, that is a burden on the business.
- However, large and very profitable organizations may be able to renegotiate terms with lenders.

EXTERNAL SOURCES OF FINANCE

Venture Capitalists

- These are specialist bankers who are more prepared to share the risks of starting a new business enterprise than traditional banks.
- Venture capitalists invest in the share capital of the business and provide loan capital for the business.
- Venture capitalists only target companies with great expansion or growth potential.

Advantages of Venture Capitalists

- The advantages are that they often provide business help and contacts - perhaps for export drives or for identifying new technologies or partners.
- They sit as non-executive directors to protect their investments.
- They will ensure that there is a planned exit route for the investment in maybe five to seven years, often through a stock market floatation or via a trade sale.

Disadvantages of Venture Capitalists

- The disadvantages are many for the existing shareholders as venture capitalists impose profit or sales targets.
- If the businesses they invest in fail to expand as planned the venture capitalists can automatically increase their equity stakes, often from that of a minority investor to being the controlling one.
- However, many organizations have used venture capital successfully and benefited from the business advice of their managers.

EXTERNAL SOURCES OF FINANCE

Grants from governments & other philanthropic organizations

- This is a growth area.
- Governments, successful entrepreneurs such as Bill Gates & large corporations keen on promoting their social responsibilities, are all increasingly seeking to help the smaller business sector with grants and soft loans.
- <u>Soft loans</u> are loans with more relaxed payment terms and lower than usual interest rates.

- While the sums may be small they can make a big difference to a projects viability.
- Often the problem is identifying what grants are actually available, although the internet has made the research easier.

EXTERNAL SOURCES OF FINANCE
(Short Term)
There are several types of short term finance:
- Bank Overdraft
- Trade Credit
- Factoring
- Leasing.

EXTERNAL SOURCES OF FINANCE (ST)
Bank Overdraft
- Banks finance the short-term needs of businesses by providing short term monies called overdrafts.
- An overdraft is repayable on demand and should be used for short term funding needs, such as when a business is waiting for customers to pay, when it needs to pay suppliers upfront or when staff have to be paid.
- When business find they are expanding very quickly due to a successful sales drive they may well find their overdraft rising as they await receipts from customers.

EXTERNAL SOURCES OF FINANCE (ST)
Disadvantages of a Bank Overdraft
- The disadvantage is that the cost of an overdraft will vary as interest rates change in the economy.
- This makes budgeting costs a little difficult.
- In some countries (eg UK) bank overdrafts can represent a very high proportion of total funding for a business. If the bank decides the business is struggling or that a recession is coming it may cut back the overdraft limit without much notice.
- This can lead to a business failing.
- Overdrafts are often secured on a personal guarantee from the owners and or the assets of the business.

EXTERNAL SOURCES OF FINANCE (ST)
Advantages of a Bank Overdraft
- The advantages are that changes in overdraft limits can be increased quite easily and it is a flexible source of finance.

EXTERNAL SOURCES OF FINANCE (ST)
Trade Credit
- Trade Credit is when a business gains extended time to pay its suppliers – perhaps 30 or 60 days after the delivery of the suppliers goods.
- This means the business can in effect use its suppliers as a source of finance.

EXTERNAL SOURCES OF FINANCE
Factoring – Third Party Agency
- When working capital is tight or when a business is struggling to get paid by customers, it may consider using a third part agency to help.

- A factor agent is a company that buys the current unpaid invoices of a business at a discount of, say 25%.
- The factor agent pays that cash immediately to the business and hopes that it can recover more than 75% of the value of the debts in order to make it a profit.
- The better the quality of the customers a business has, the greater the percentage that the factor agent may be prepared to offer upfront.

EXTERNAL SOURCES OF FINANCE

Advantages of Factoring

- The advantage is that the business receives cash upfront and can use this money to fund expansion and working capital needs more generally.
- In addition, the administration cost to the business of chasing up its customers, is immediately removed.

EXTERNAL SOURCES OF FINANCE

Disadvantages of Factoring

- The disadvantage is that the business is really giving up some of its profit margin by doing this.
- For example, if the firm is making a 50% profit margin already, giving away 25% of the sales value may be acceptable, but not if the business is only making a small margin.
- Equally factoring will not help very small businesses and those with very marginal and local clients.
- Also remember that a factor agent ringing up your biggest customer and demanding immediate payment (otherwise the customer may be taken to court) could mean that you could lose vital sales in the future.

EXTERNAL SOURCES OF FINANCE

Leasing

- When purchasing assets such as new machines or vehicles it can be sometimes be useful to consider leasing as a source of finance.
- Many airlines lease purchase their aircraft.
- GE, a large US finance company, is one of the largest leasing businesses in the world.
- Equally leasing can be arranged with firm's own bank.

EXTERNAL SOURCES OF FINANCE

Advantages of Leasing

- The advantages are that the business does not need to find a large initial lump sum to buy the equipment and can thus pay for the asset from its own revenue.

EXTERNAL SOURCES OF FINANCE

Disadvantages of Leasing

- The disadvantages are that the ownership of the asset does not pass to the business until the last payment has been made and the business will probably be paying a reasonably high level of interest.

7.6 Final Comments – External Sources of Finance

- Using external financing brings in much needed funding for expansion, but it has its problems or costs.
- Gearing ratios, rises as loans become a larger share of the total capital of the business, also interest cover ratios may worsen, unless profit rises proportionally as well.
- Equally more long term debt will dilute the owners stake in the business and that of the lenders will rise, affecting to some extent business decision making.
- It is important to consider a variety of funding sources and not to become overly dependent on one.

SELF CHECK 7.2

AMH Co wishes to calculate its current cost of capital for use as a discount rate in investment appraisal. The following financial information relates to AMH Co:

Financial position statement extracts as at 31 December 2012

	$000	$000
Equity		
Ordinary shares (nominal value 50 cents)	4,000	
Reserves	18,000	22,000
Long-term liabilities		
4% Preference shares (nominal value $1)	3,000	
7% Bonds redeemable after six years	3,000	
Long-term bank loan	1,000	7,000
		29,000

The ordinary shares of AMH Co have an ex div market value of $4·70 per share and an ordinary dividend of 36·3 cents per share has just been paid. Historic dividend payments have been as follows:

Year	2008	2009	2010	2011
Dividends per share (cents)	30·9	32·2	33·6	35·0

The preference shares of AMH Co are not redeemable and have an ex div market value of 40 cents per share. The 7% bonds are redeemable at a 5% premium to their nominal value of $100 per bond and have an ex interest market value of $104·50 per bond. The bank loan has a variable interest rate that has averaged 4% per year in recent years.

AMH Co pays profit tax at an annual rate of 30% per year.

Required:
Discuss why the cost of equity is greater than the cost of debt.

Points to Ponder/Takeaways

Bank lending
The term bank credit refers to the amount of credit available to a business or individual from a banking institution in the form of loans.

Capital markets
It describe any exchange marketplace where financial securities and assets are bought and sold

Deferred ordinary shares
A deferred share is a share that does not have any rights to the assets of a company undergoing bankruptcy until all common and preferred shareholders are paid.

Government assistance
Programs fall into eight general categories: financial, home rental, homeownership, food, healthcare, retirement, taxes, and small business.

References

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