

CHAPTER II

MANAGEMENT ACCOUNTING AND BANKING

The main objective of the present study is to examine the extent to which various management accounting techniques are being applied by the branch manager while taking ~~lending~~ lending decisions. Before we discuss the application of various management accounting techniques by lending officers, while taking lending decision, it is attempted to discuss the evolution and definitions of the subject of management accounting, its scope and uses. The development in the Indian banking scenario is also studied with a view to examine the changes that have taken place for banking as a whole and lending in particular.

The present chapter is divided in two sections. Section I is devoted to development of management accounting and Section II is devoted to development of banking.

SECTION I

MANAGEMENT ACCOUNTING : GENESIS AND TECHNIQUES

The term Management Accounting is composed of 'Management' and 'Accounting'. The word 'Management' here does not signify only top management but the entire personnel charged with the authority and responsibility of the operating organisation.

Furnishing accounting information to management for the purpose of decision making is the main task of management accounting. Management accounting provides management with the tools for analysis of its administrative action by putting its impact on the possible alternatives in terms of costs, prices and profits etc.

This Section, therefore, discusses the evolution of management accounting system, the word formation of 'Management Accounting', few definitions, features of management accountant, its scope and the main management accounting tools and techniques.

(A) EVOLUTION AND DEFINITIONS :

Accounting is often referred to as a language of communication. This indicates that the purpose of accounting is to communicate or to report the results of business operations and its various aspects.

According to the American Institute of Certified Public Accountants, "Accounting is the art of recording, classifying and summarising in a significant manner and in terms of money, transactions and events which are in part at least of financial character and interpreting the results thereof".

Accounting can be broadly classified in 3 types :

(a) financial accounting (b) cost accounting and (c) management accounting.

These three types cannot form watertight compartments, each one supplements the other. In fact financial accounting provides the basis for cost accounting as well as management accounting and in the ultimate analysis management accounting includes a part of cost accounting.

It may be noted that the definition given above is more relevant to the branch of financial accounting. Financial accounting has got its wider application on account of the basic requirement of recording the transaction, when any organisation starts functioning to know its outcome.

The area of cost accounting deals mainly with analysing the cost data. According to the Institute of Cost and Works Accountant (ICWA), London, cost accounting is "the process of accounting for cost from the point at which expenditure is incurred or committed to the establishment of its ultimate relationship with cost centres and cost units. In its widest usage it embraces the preparation of statistical data, the application of cost control methods and the ascertainment of the profitability activities carried out or planned."

The term management accounting is very wide and includes both the types of accounting mentioned above. It deals specifically with information generation for management for the purpose of decision-making and to administer the operations.

In his article 'Evolution of management accounting'¹ Kaplan has summarised how the subject of management accounting has developed over a period of time. He states that "later in 1980s the newly formed mass distribution and mass production

1. Kaplan Robert S., 'Evolution of Management Accounting' Accounting Review, July, 1984, pp. 390-417.

enterprises adapted the internal accounting reporting systems of the railroads to their own organisations. The nationwide wholesale and retail distributors produced highly detailed data on sales turnover by department geographic area, generating performance reports very similar to those that would be used 100 years later to monitor the performance of revenue centres in the firm".²

According to R.S. Kaplan "the origin of modern management accounting can be traced to the emergence of managed hierarchical enterprises in the early nineteenth century, such as armories and textile mills".³

Eventhough out of need of management the techniques were being developed and suiting to the needs of organisation, planning and reporting systems were being developed, it was known as accounting for management or management oriented accounting.

As Callaby puts it "The first world war showed the need for ~~cost~~ control in the industry and from this need was born The Institute of Cost and Management Accountant".⁴ He further states that "the second world war reinforced the demand for cost control and the American under the Marshall plan gave the next impetus".⁵

2. Ibid., p. 392.

3. Kaplan Robert S. and Anthony A. Atkinson., Advanced Management Accounting, p. 2.

4. Callaby F.A., Management Accounting in Practice, p. ix.

5. Ibid., p. ix.

As pointed out by many writers management accounting was not known to business world until 1950. The term was first formally described in a report entitled 'Management Accounting' in 1950. The report was published by Anglo-American Council of Productivity Management Accounting Team after its visit to United States during 1950.⁶ The team in its report defines management accounting as "the presentation of accounting information in such a way as to assist management in the creation of policy and in the day-to-day operations of an undertaking".

Some other definitions of management accounting are as under, for example :

"Any form of accounting which enables a business to be concluded more efficiently can be regarded as Management Accounting".

ICA ENGLAND AND WALES *

"Management accounting is the application of appropriate techniques and concepts in processing historical and projected economic data of an entity to assist management in establishing plans for reasonable economic objectives in the making of rational decisions with a view towards these objectives".

AMERICAN ACCOUNTING ASSOCIATION *

6. Sahaf M.A., Management Accounting - Principles and Practice, p. 4.

Callaby F.A., Management Accounting in Practice, p. ix.

Vinayakam N., Management Accounting - Tools and Techniques, p. 3.

Murphy Mary E., Managerial Accounting, p. 4.

* Sahaf M.A. Management Accounting - Principles and Practice, P4

~~Management Accounting~~ "Management accounting is the application of professional knowledge and skill in the preparation of accounting information in such a way as to assist management in the formation of policies and in the planning and control of the operations of the under taking".

ICMA LONDON *

~~The term management accounting~~ "The term management accounting covers all those services by which the accounting department can assist top management and other departments in the formation of policy, the control of its execution and appreciation of its effectiveness".

BROAD AND CARMICHAEL *

~~Pointing out the distinction of~~ management accounting from financial accounting and stating the characteristics of management accounting very precisely Prof. Bromwich states that, "Financial accounting is also used by those external to the enterprise for decision making. External accounting reports may not provide ideal information for decision-making. This is because decision-making is future-oriented whereas financial accounting is non-dynamic, back-ground looking, conservative, as objective as possible and subject to statutory and other regulation. Management accounting is future oriented, is dynamic, produces forward looking figures and is meant to be decision and control relevant, should not be too concerned with objectivity and is not generally subject to external regulations".⁷

7. Bromwich Michael, Managerial Accounting : Definition and Scope - from a managerial view; Management Accounting, September, 1988, p. 26.

The IFAC defines management accounting as "the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information (both financial and operating) used by management to plan, evaluate and control within an organisation and to assure use of and accountability for its resources. Management accounting also comprises the preparation of financial reports for non-management group such as shareholders, creditors, regulatory agencies and tax authorities".⁸

Thus here the importance and utility of the subject of management accounting to the non-management group is also emphasised.

From above going various definitions and descriptions it follows that (i) the subject of management accounting is a merger of management and accounting (ii) it involves the use of accounting information for decision-making (iii) it is to be used towards improving the efficiency of the organisation and (iv) it is to be used for efficient utilisation of resources and accountability of the same.

Briefly put, "the primary task of the management accounting is therefore, to redesign the entire accounting system so as to serve the operational needs of the firm. It furnishes definite

8. Ibid., p. 27

accounting information, past, present or future which may be used as a basis for management action. The financial data are so devised and systematically developed that they become a unique tool for management decision".⁹

Cyril Banyard puts this in another way by describing the abilities required of a management accountant as follows :

"In these process of development over 65 years (1920 to 1985), the Management accountant has become known as accountant with special ability :

- (a) to relate well to managers and the technical disciplines through acquiring a communication capability based on understanding their subject as well as finance;
- (b) to provide skill in synthethising of ideas from all kinds of data, to complement ability in analysis.
- (c) to approach with a forward looking commercial awareness both strategic and immediate business issues".¹⁰

To fulfil all these requirements the management accountant should have some knowledge of variety of subjects

9. Kulshrestha N.K., An Approach to Management Accounting, p. 4.

10. Banyard Cyril, Management Accounting in Business - Developments over the Next Decade, Management Accounting, April, 1985, p. 48.

like political science, sociology, psychology, management, economics, statistics, law etc. This is because the knowledge of these subjects makes his functioning smooth. The knowledge of Political Science helps to understand authority relationships and responsibility identification in the organisation. The behaviour of staff in group can be understood with the help of Sociology. The study of Psychology throws light on the mental make-up of the employers and employees. It further helps in motivating staff and controlling their action. Management reveals the art of managing in managerial process and the knowledge of subject of Economics assists in the forecasting of sales, production, determination of optimum output and to analyse cost, revenue, profit etc. Statistics gives the know- analytical techniques and the knowledge of ledge of Law protects the things from being ultravires.

(B) SCOPE OF MANAGEMENT ACCOUNTING :

From the above going discussion it follows that the scope of management accounting is very vast and includes within its fold almost all aspects of business operations. However, following are some of the main area falling within the ambit of Management Accounting¹¹:

(i) Financial accounting

(ii) Cost accounting

11. Sahaf M.A.: Management Accounting - Principles and Practice, p. 6.

Vinayakam N., Management Accounting Tools and Techniques, p. 6.

Maheshwari S.N., Management Accounting for Bankers, p.A.9.

Kulshrestha N.K., An Approach to Management Accounting, p.13.

- (iii) Budgeting/Budgetary control
- (iv) Statistical data/Quantitative techniques
- (v) Taxation
- (vi) Office services
- (vii) Cost control techniques
- (viii) Methods and procedure
- (ix) Internal auditing
- (x) Inventory control
- (xi) Interim reporting
- (xii) Inflation accounting
- (xiii) Revaluation accounting
- (xiv) Operation research

(C) MANAGEMENT ACCOUNTING TECHNIQUES :

From a foregoing background of development of subject of management accounting, its descriptive definitions, salient features and scope, it follows that the management will have to use various tools and techniques towards achieving the goals of effective planning, organising, co-ordinating and controlling the efforts and resources of the undertaking. Generally a complete list of tools and techniques is not available because after all the management has to be tailor made and dynamic according to the needs of the undertaking and hence the management accounting tools and techniques have also to be tailor made and dynamic according to the requirements of the organisation.

Still the major tools and techniques can briefly be put as follows :

Planning, organising, co-ordinating and controlling are the main functions of the management and hence the first tool/techniques of management accounting is the planning. The management will always be interested in the profit and for the purpose of profit planning one important technique which is being used is of break - even - analysis or cost - volume - profit analysis. How to present the profit figure to the external-analyst is very important for image building and to get funds from banks and for this purpose the costing techniques adopted by the organisation for the purpose of stock-valuation plays a very important role. Management will also always be interested in knowing from where the funds have come and where they have been used during the year and for this purpose funds flow statement can be prepared. Also, this funds flow statement can be used as a tool of planning by projecting balancesheet and income and expenditures between two dates. More important than funds flow is the cash flow because one would not have heard any organisation being closed if enough cash is available on hand and hence cash budgets are very important for the management and over and above this the analysis of financial statements and the relationship between two components of the balancesheet or profit and loss account and one component of balancesheet and one component of profit and loss account is important. Another one important decision which

management has to take is regarding investment, which is known as the investment decision or capital budgeting decision. Various techniques are available for this decision-making like payback, ARR, NPV and IRR.

All the above techniques of management accounting i.e. Planning, Budgetary Control, Costing Techniques, Marginal Costing, Cash Flow Analysis, Funds Flow Analysis, Financial Statement Analysis, Ratio Analysis, and Capital Budgeting are briefly discussed.

(1) PLANNING :

Planning is the most important function of management. It involves determination of a course of action to achieve desired results. It can rightly be described as the process of thinking before acting. It refers to visualization of firm's future positions over a specified period of time and the determination of the required course of action to enable the firms to reach that position.

A.K. Chatterjee has rightly pointed out the use of planning in management accounting. He states that, "Management accounting (or management accountancy) is a multi-disciplinary system which as it has evolved in the modern world, is not exclusively concerned with historical transactions and maintenance of accounting records. It looks ahead into the future providing a workable business plan which gives management a glimpse of shape of things to come. It is the eye and ears of management

constantly reviewing and controlling performance vis-a-vis standards it has established, reviewing the standards themselves when need be".¹²

Kaplan traces the origin of planning and control, to the 19th century. In his article he states that "the demand for information for internal planning and control apparently arose in the first half of the 19th century. When firms, such as textile mills and railroads, had to devise internal administrative procedures to co-ordinate the multiple processes involved in the performance of basic activity".¹³

According to Koontz and O'Donnell "although the exact future can seldom be predicted and factors beyond control may interfere with the best - laid plans, unless there is planning, events are left to chance. Planning is an intellectually demanding process; it requires the conscious determination of courses of action and the basing of decisions on purpose, knowledge and considered estimates."¹⁴

According to M.A. Pitcher "some forward planning seems essential if business is not to miss the good opportunities

12. Chatterjee A.K., Management Techniques of Bank Lending, p. 426.

13. Kaplan R.S., Evolution of Management Accounting, p. 391, Accounting Review, July, 1984.

14. Koontz Harold, O'Donnell Cyril and Weihrich Heinz, Management, p. 156.

which present themselves from time to time or risk wasting effort and money exploring every single new avenue regardless of the logic or track of it, in placing them alongside the company's mainstream activities".¹⁵

It (i.e. Planning)" is an inescapable part of all rational human activity. Because of its importance to organisations, their planning process have become refined and structured in order to improve their efficiency,"¹⁶ as Lucey puts it.

Emphasising the importance of planning Anthony states that "a group of people not operating under some sort of plans is merely an incoherent directionless mob, not an organisation."¹⁷

(II) BUDGETING :

Planning and controlling are two main functions of the management and this technique/tool of management accounting assists towards both these functions of the management.

"Budgeting dates back to the eighteenth century in England, when the annual accounting report presented to parliament was referred to as budget. It included, not only the accounts of the past year, but also an estimate of the coming year's expenditures. Hence, budgeting has traditionally been associated with the accounting function. After 1900, business budgets were

15. Pitcher M.A., Management Accounting for the lending banker, p. 25.

16. Lucey T., Management Accounting, p. 58.

17. Anthony Robert N., Management Accounting Principles, p. 356.

gradually developed in many countries and budgeting became recognize as a management function".¹⁸

Thus budget is a plan of future activity expressed in financial/quantitative terms covering a specific period of time usually one year. According to the Institute of Cost and Management Accountants, England, "a budget is a financial and/or quantitative statement, prepared and approved prior to a defined period of time, of the policy to be pursued during that period for the purpose of attaining a given objective." J. Ratnatunga, R. Pike and G. Hooley put budget in the following words : "A budget is a quantitative expression of a plan of action and an aid to co-ordination and implementation"¹⁹ As Joseph Baggott puts it, "The planning aspect of budgeting first-of-all enables management to determine those policies needed to achieve the desired goals. A knowledge of the costs of the resource inputs together with the predicted incomes forms the basis for profit forecasting."²⁰

From above, the characteristics of budget may be briefly stated as follows :

18. Burke Walter L. & Smyth E. Bryan, Accounting for Management Cost Analysis, Planning Control and decision making, p. 15.

19. Ratnatunga J., Pike R. and Hooley G.J.; The application of management accounting techniques to marketing - Accounting and Business Research - Autumn, 1988, p. 365.

20. Baggott Joseph, Cost and Management Accounting Made Simple, p. 211.

- (a) It is prepared in advance.
- (b) It is derived from the long-term strategy of the business.
- (c) It relates to future period.
- (d) It is expressed in quantitative form or monetary units or worth.

The few benefits derived from budgeting as pointed out by Prasanna Chandra are -

"Budgets provide several benefits in that they

- induce management to think systematically about the future,
- serve as a device for co-ordinating the complex operations of the business,
- provide a medium for communicating the plans of the firm
- motivate managers at all levels to perform well
- serve as a standard against which the actual performance may be judged."²¹

Explaining budgeting as management accounting technique Lucey states that "Short-term tactical planning or budgetary planning is the process of preparing detailed, short-term (usually one year) plans for the functions, activities and departments of the organisation thus converting the long-term corporate plan

21. Chandra Prasanna, Manager's Guide to Finance and Accounting, p. 81.

into action. In general, plans are developed using physical values, for example, for number of units to be produced, the number of hours to be worked, the amount of materials to be consumed and so on. When monetary values are attached the plan becomes a budget".²²

(iii) BREAK - EVEN - ANALYSIS :

One of the tools of management accounting mentioned above is marginal costing. As opposed to full costing, the marginal costing refers to the variations in cost with unit change in production. As defined by the Institute of Cost and Management Accountants, London marginal cost is "the amount at any given volume of output by which aggregate costs are changed if the volume of output is increased or decreased by one unit".

Break even analysis is the extension of marginal cost analysis. It (Break even analysis) dates back to 1903 and "the use of Break even charts to express the variations of cost with output could be found in writings in England and United States in 1903 and 1904".²³

The break even point refers to the point where there is no profit no loss, i.e. derived as where the sales revenue (SR)

22. Lucey T., Management Accounting, p. 66.

23. Kaplan Robert S., Evolution of Management Accounting, Accounting Review, July, 1984, p. 397.

is equal to total cost (TC).

$$S.R. = T.C.$$

$$S.P.Pu \times Q = Fc + Vc P.u. \times Q$$

$$Q = \frac{Fc}{Sp Pu - V.c.P.u.}$$

Where, S.p Pu is Sales price per unit

Q is the quantity

Fc is the fixed cost and

VcPu is the variable cost per unit.

Sp Pu - Vc Pu represents the contribution per unit. This indicates the units when the contribution will equate the fixed cost.

This break-even point may be arrived at in terms of units as shown above or in terms of sales. When it is arrived at in terms of sales it is known as break-even sales, where certain level of sales price, fixed cost and variable cost per unit are assumed to be given.

Naturally, any undertaking will not be interested in searching this point only; however, the aim would be to achieve certain goal, generally about the quantum of sales or certain profitability level. Break-even-analysis also helps in drawing this information. Hence, on account of its usefulness break-even analysis has got a wider utility for managerial decision making. It is also known as cost-volume-profit relationship because it represents the relationship amongst

these three variables. Thus break-even-analysis becomes major tool for profit planning.

Assumptions :

The assumptions on which break-even-analysis is based are :

- (a) Cost can be classified into fixed and variable component.
- (b) The principle of cost-variability is valid.
- (c) Variable costs vary proportionately with the volume of changes.
- (d) Fixed costs remain constant irrespective of level of activity.
- (e) Selling price does not change with volume changes.
- (f) There is no change in general price level.
- (g) There is only one product or in the case of multi-product sales mix remains constant.
- (h) There is synchronisation between production and sales.
- (i) Productivity per worker remains constant.
- (j) Revenue and costs are being compared with a common activity base.
- (k) Plant capacity and efficiency remain unaffected.

Introducing uncertainty in break-even-calculations :

Now when the management is using these break-even-analysis, which is broadly known-as cost-volume - profit relationship, for the profit planning, as per the general prevailing practice, at different levels of sales volume, different profit figures are worked out. Here there is an assumption that certain sales volume is to be achieved. It is further assumed that sales price remains constant for various sales volume assumed for different period and fixed costs and variable costs also remain same. This assumption that no factor except sales volume changes, over simplifies the reality or one may say that it is far from reality. As rightly put by B.M. Lall Nigam, "No sooner has the analyst gotten a fix on the various pertinent factors, then they begin to drift away from him. Unless therefore, the format is recast to bring in the dimension of risk and uncertainty, it is largely a theoretical construct, hardly holding good in the actual business life."²⁴

Now when the uncertainties are prevailing it is worth while to incorporate this chance factor in the profit planning. Hence what is required is (a) to assign probability to various sales volume which are likely to be achieved i.e. which sales volume is more likely to be achieved is very important and accordingly likely profitability is to be worked out. This gives planned profit very nearer to reality. (b) when profit planning is made,

24. Nigam B.M., Lall, Financial Analysis Techniques for Banking Decisions, p. 224.

the sales price, fixed cost and variable cost per unit are also assumed to be constant. Now, in the competitive market with change in volume or change in demand there are all possibilities that the price will change and with change in price profit margin will change, hence, in order to achieve their goals, the dynamic management should take into consideration the probable variations in the sales price and variable cost per unit with change in circumstances/change in volume of sales.²⁵

About incorporating uncertainty in cost-volume-profit analysis Horngren states that "Obviously, our estimates and predictions are subject to varying degrees of uncertainty, which is defined here as the possibility that the actual amount will deviate from expected amount, ... Application of sensitivity analysis to certainty model is the most widely used approach sensitivity analysis is a 'what if' technique, that measures how the expected values in a decision model will be affected by changes in the critical data inputs. In the context of cost-volume-profit analysis sensitivity analysis answers questions such as "what will my net income be, if the unit variable costs or the sales prices changes by some amount from the original prediction ? The major benefit of sensitivity analysis is its provision of an immediate financial measure of the consequences of possible prediction errors. It helps focus on those

25. Malikarjunappa T., Break even point under Risk : Management Accountant, December, 1984, p. 736. He has discussed both the above points with the help of an example in the said paper.

aspects that are very sensitive indeed and it eases the manager's mind regarding those predictions that have little impact on decision."²⁶

Consideration for multi-product situation :

One of the assumption underlying break-even analysis is regarding the single product situation or constant product mix in case of multi-product firm. In this connection K. Nanjegowda mentions that "the rapid change in innovations, technology, demand, competitive situation and the need for survival and growth have forced the firms to manufacture more than one product. The result has been multi-product strategy which is a shortened name for a company's long range planning.

Eventhough the firms make or sell several products the Break-even concept has been basically developed by the cost accountant on the premise that each firm makes or sells only one product. The reason for such bias may be found partly in the simplicity of theoretical analysis, when it is confined to a single product. It is also felt that determination of BEs is conceptually and empirically difficult under multi-product situation."²⁷

Eventhough there is no standard method for determination of break-even point under multi-product situation, various methods are being applied for the purpose.

26. Horngren Charles T., Cost Accounting : A Managerial Emphasis, p. 51.

27. Nanjegowda K., Approaches to multi-product Break-even-point : An Appraisal - Management Accountant, August, 1987, p. 589.

Srinivasan while emphasising the limitation of break-even-analysis states that "one of the limitation of break-even-analysis is that the results obtained on a firm's aggregate income and expense statement can be misleading in the case where firm sells a number of products. Thus computing the break-even sales in units would depend on the availability of information to break down the aggregate data by products."²⁸

When these three aspects viz. sales volume may be a random variable, variable cost per unit and sales price per unit may change at different level of production and multiproduct situations are incorporated in break-even analysis, it gives more realistic output.

Introducing time - value of money :

The most recent development in break-even analysis is the introduction of time-value concept to the break-even-analysis. M. Freeman and K. Freeman point out how inconsistent it is to appraise investment using discounted cash flow techniques like net present value and to make operating decisions based on break-even analysis. They show that whatever the break even level is worked out without discounting (which is the general practice), gets distorted when the discounting is applied to the coming years, when break-even point is not achieved in the year of installation.²⁹

28. Srinivasan Venkatesan, More on Break-even-analysis, Journal of Commercial Bank Lending, July, 1984, p. 56.

29. The above comment is based on the article by Freeman Mark and Freeman Kerrie, Considering the time value of money in Break even analysis, Management Accounting, January, 1993, pp. 50-52.

(IV) COSTING TECHNIQUE :

The correct cost determination is the basic requirement for profit-planning, various methods of costing are : absorption costing, standard costing and marginal costing. Here the detailed discussion of these techniques is not being made, however, what is much more important is the use of these techniques by the management in the process of decision-making. Marginal costing as discussed in the above para is basis for break-even-analysis. The standard costing is the planning stage and then use of it in carrying out variance analysis is a control technique. For the purpose of price determination a decision has to be made between the absorption costing and the marginal costing.

It may be noted that one important aspect of costing technique is about the method of stock-valuation.

When the goods are purchased, they are purchased at certain price and it is quite possible that some part of it remains in stock at the year-end. At what price these stock should be shown is a matter of concern for the management, because higher the value of stock shown, higher will be the profit and also higher value of stock will affect to the level of current assets and hence the working capital and also the current ratio.

There are various methods of pricing the material issue which in turn affect to stock-valuation. They are³⁰ :

(a) specific price method (b) FIFO (c) LIFO (d) Average price

30. Prasad N.K., Principles and Practice of Cost Accounting,
pp. (3.19 - 3.26)

method (e) Standard price Method (f) Base-stock method (g) FIFO
(h) Market price method (i) LIFO.

It is not necessary to go into details of all these methods, but as the FIFO and LIFO method affects the stock-valuation from two different directions, they are discussed here.

FIFO : This means "First-In-First-Out" i.e. here the issues are priced in the order of the purchases. The price of the earliest consignment is taken first and when that consignment is exhausted, the price of next consignment is applied and so on.

The effect of this on stock-valuation will be, the price of the latest purchase is to be considered for quantity purchased in the last consignment. If the quantity of stock is higher than quantity of stock purchased in last consignment, the price of next to last consignment is to be considered for quantity purchased in that consignment and so on. As a result of this when for the purpose of issue of stock FIFO method is used, the stock-valuation will be at the most current price.

LIFO : This means "Last-In-First-Out". In this method, pricing of the issue is made in the reverse order of purchase, i.e. by adopting the price of latest available consignment. This indicates that here the current cost of material is applied to the cost of units except where the material is purchased long ago.

The effect of this on stock-valuation will be that the stock will be valued at the oldest price of the consignment.

i.e. here the reference will be made to the opening stock if it is not consumed before next issue and for the balance quantity the next consignment and so on.

A minute study of these two methods will reveal that both these are almost opposite to each other. They affect very much differently to the stock-valuation; for example, if an inflationary situation is assumed, where prices are rising rapidly, under the FIFO method the stock-valuation being at the latest price will be higher and under LIFO method stock-valuation being at the oldest price will be lower. This will affect to profit figure, working capital and current ratio which management has to decide very carefully, i.e. how they want to present it to the external-analyst.

This is because when stock-valuation is higher, profit is shown higher. Secondly, stock/inventory forms part of current assets, hence it will increase the current ratio and also the net working capital; also when higher the profit higher will be the tax burden and this will reflect directly on the liquidity aspect of the unit. Contrary will be the situation when stock is valued on LIFO basis. Here profit will be lower hence tax-liability will be lower. Current assets will be lower and hence current ratio and net working capital both will be lower. "LIFO therefore, must be considered primarily a tax-tool which allows the tax-payer to eliminate inflationary factors from inventories and to reduce the tax-liability accordingly."³¹

³¹. Golding Jordan L., Retail Inventories and Loan Officer :
Journal of Commercial Bank Lending, June, 1972, p. 23.

Under MAOCARO Act, the auditors are required to certify "whether the auditor on the basis of his examination of stocks is satisfied that the valuation is fair and proper in accordance with the normally accepted accounting principles? Is the basis of valuation of stocks same as in the preceding years; if there is any deviation in the basis of valuation effect of such deviation, if material is to be reported."³²

Eventhough, under Indian Accounting standard the method of inventory valuation is not mandatory, a broad condition put is regarding valuation of inventory at lower of historical cost or net realisable value.³³

Both FIFO and LIFO are the acceptable basis for stock valuation, alongwith average cost.³⁴

The only requirement is the consistency in the method of valuation and the disclosure under the circumstances of change in the method of valuation for any material effect, alongwith the extent thereof.³⁵

32. Manufacturing and other companies (Auditor's Report) order, 1988, issued by Company Law Board, (Paragraph 4(A) (vi))

33. Accounting Standard : 2

Valuation of Inventories Para : 24

Issued by

Institute of Chartered Accountants of India. Delhi

34. Ibid., Para 26.1.

35. Ibid., Para 31.

However, in the opinion of Bohan and Rubbin "LIFO companies should disclose the alternative inventory amount or the LIFO reserve because many users of financial statements find that information helpful in analysing the effect of price changes and comparing LIFO companies with Non-LIFO companies."³⁶

On the impact of different methods of stock-valuation Morrison observes that : "LIFO has the effect of understanding inventory in terms of its current cost. A company using LIFO shows a lower current ratio and higher debt to networth ration than if it were using FIFO (First in/first out). By more closely matching current costs with current selling prices, LIFO also states profit more conservatively because it tends to reduce the impact of inflation by minimising the holding gains which result from purchasing inventory in one period and selling it several periods later. FIFO forces those holding gains through the income statement on a current basis. While this improves operating and leverage ratios in relation to LIFO statement, it also results in more taxable income, a higher tax-liability, and a reduction in cash compared to LIFO company. If the LIFO company effectively invests this cash savings, models can demonstrate that the company will develop better performance statistics in the long-run than the FIFO company."³⁷

36. Bohan Michael P. and Rubbin Steven,

LIFO : What should be disclosed ? The Key : Help for users of financial statements : Journal of Accountancy, February, 1985, p. 73.

37. Morrison T. Lincoln Jr., The Last Word on LIFO This week ! Journal of Commercial Bank Lending, September, 1980, p. 3.

(V) FUNDS FLOW :

Funds flow statement describes the sources from which additional funds were derived and uses to which these funds were put and hence it is also known as Sources and Application of funds. According to Anthony "Income statement is a flow statement; it explains the changes that occurred in retained earnings in connection with operation of business by summarising the increases (revenues) and decreases (i.e. expenses) during the period."³⁸

The funds flow statement even though not the basic statement, summarizes what has happened, between the two balance sheet dates. Unlike balance sheet, it is not prepared from the basic records, however it is prepared from the balance sheet. Hence one of the basic purposes of funds flow statement is of "analysing what has happened in the past."³⁹

M.A. Pitcher puts the utility of funds flow statement in the following words :

"The basic idea is that for any given period a statement of sources and application of funds should provide a link between the initial balance sheet, the closing balance sheet and the profit and loss account running between the two dates. If balance sheets can only reveal a 'frozen' picture of the financial structure of a business at a moment in time whilst the profit and loss account relates only to items of revenue and expenditure (it does not

38. Anthony Robert N., Management Accounting Principles, P.240.

39. Ibid., p. 258.

for e.g. show purchases of a capital nature) there would appear to be some value in producing a statement that shows the nature and amount of the funds that became available during the year and how they were used by the managers of the business. This statement in no way replaces the balancesheet or profit and loss account but should be looked upon as an additional report which draws selected information from these other documents in such a way as to show the overall flows of funds from the beginning to the end of the accounting period."⁴⁰

According to S.C. Kucchal "The funds flow statement is not a supporting schedule to the balancesheet, the income statement or the statement of allocation of earnings, although it is technically based upon the same accounting data and ties into these financial statements. It is, instead, a complementary statement, an important report in its own right to present information which cannot be obtained from the other financial statements."⁴¹

So far as the preparation aspect of funds flow statement is concerned it can be prepared :

- (a) directly from two balancesheets i.e. here the funds flow statement will indicate each aspect of change.
- (b) by preparing first the schedule of changes in working capital and then preparing funds flow statement. Here the

40. Pitcher M.A., Management Accounting for the Lending Banker, p. 103.

41. Kucchal S.C., Financial Management - An Analytical and Conceptual Approach, p. 37.

funds flow statement will indicate only the change in working capital and only those items which do not form part of either current assets or current liabilities will be shown individually in the funds flow statements. Here statement of changes in working capital will be annexed to funds flow statement.

(VI) CASH FLOW :

Emphasising the importance of liquidity and thereby cash, J.H. Clemens states that "Liquidity is very important. Cash must be available, obtainable in every business in the right quantity at the right time. Its presence means vigour and stamina; its absence weakness and instability. The flow of cash is the ultimate criterion of sound business and sound lending alike."⁴² Hence "it is little comfort for management to know that the firm has good net working capital position if insufficient cash is available to meet required expenditures."⁴³

Similar to funds flow statements, cash flow statements may also relate either to past or to future. When the statement is prepared from historical data, it is known as statement of cash flow. This reveals the mismanagement of funds, if any, in the immediate past, which can be rectified in the time to come. When this statement is prepared based on the forecasts (i.e. the

42. Clemens J.H., Balancesheets and the lending banker - A new assessment of accounting statements and their interpretation in relation to Bank advances, p. 244.

43. Korn S. Winton and Boyd Thomas,

Accounting & For Management Planning and Decision making, p.284.

statement is relevant to the future period) it is known as cash budget or cash projections.

Cash flow statement is a statement showing the effect on cash of business activity. 'Cash flow' in financial analysis means net income after adding back expense items which currently do not use funds, such as depreciation. However, adding back such items as depreciation does not convert the net income to something.

The methods in which cash flow statements/cash budget can be prepared are :

- Cash receipts and disbursements

- Adjusted earnings

- Balancesheet projections

- Working capital extrapolation

Any of this method can be used, under both the circumstances viz. preparation of cash flow from historical statements and preparation of cash projection based on the future data. The methods are not being discussed as it is the outcome which is important for management and not the method of preparation.

Pointing out utility of cash flow statement/cash budget for management Pitcher states that :

"A cash flow forecast examines the implications of the operating and capital budget on the cash resources of a business. It is not concerned with a profit or loss, or any items not involving

inflows or outflows of cash. It is a vital part of the planning and control mechanism of a business, enabling management to make the fullest use of what is normally a very scarce asset."⁴⁴

According to Anthony, "In making cash budget, special attention is paid to the timing of the flows, that is to the anticipated need for cash, in each month or in each quarter of the period covered. Particularly in business subject to seasonal fluctuations, there are likely to be heavy but temporary cash ^{needs in months when inventories are being} built up."⁴⁵

From the point of view of relieving pressures on internal funds and making them work harder, the projected cash statement appears nothing short of panacea for the problems of the financial manager. By comparing expected receipts with expected expenditures in the form of cash forecasts, one can estimate the likely overage or shortage of funds in any given period and then weigh the different alternatives for closing. A fore-knowledge of cash balance is important both as an indicator of readiness to meet obligations and as a measure of free capital available for investment and dividends. With this device the whole gamut of financial programmes can be pre-tested, and their feasibility examined before any actual moves are made.

The most recent development in cash flow planning is one known as the strategic cash flow planning; and Bhattacharya observes that "strategic funds management is a far superior tool

44. Pitcher M.A. Management Accounting for Lending Banker, p.93.

45. Anthony Robert N., Management Accounting Principles, p. 259.

to the narrow concept of cash flow planning. In cash flow planning we are accepting a static situation i.e. if we have a planned expansion programme and the cash requirement for outweigh cash generation, we look at only two options raising finance and reducing the expansion programmes. If in the middle of this period, we face a crisis, we do not know exactly where we can turn to for help.

In strategic cash flow planning we are looking at the entire scenario in the dynamic sense, considering every available possibility for demand and supply of cash."⁴⁶

(VII) FINANCIAL STATEMENT ANALYSIS AND RATIO ANALYSIS :

Financial statements serve as horoscopes of the enterprises and can be studied and analysed in order to measure financial position of a concern. Such statements contain sufficient valuable information about various aspects of business that can be useful for business decisions. Like lines in palm or horoscope financial statements can be studied, puzzled over and scrutinized.

I.M. Pandey describes financial analysis as "the process of identifying the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balancesheet and the profit and loss account."⁴⁷

According to John N. Myer "Financial statement analysis is largely a study of relationships among the various financial

46. Bhattacharya Keron, Strategic cash flow planning : Management Accounting, January, 1988, p. 21.

47. Pandey I.M., Financial Management, p. 500.

factors in a business, as disclosed by a single set of statements and study of these factors as shown in a series of statements."⁴⁸

"Financial analysis is a mental process that requires ingenuity, imagination, experience and insight a process for which there can be^{no} mechanical substitutes."⁴⁹

So far as ratio analysis is concerned the word "ratio" comes from the Latin word 'reri' meaning "to think, judge, calculate, relation" and is related with the past participle "ratus".⁵⁰ "In the middleages it was used to signify computations generally reckoning, calculation or reasoning."⁵¹

Ratio analysis is one of the popular tools of financial statement analysis. Ratio is the quotient formed when one magnitude is divided by another measured in the same unit. A ratio is defined as "the indicated quotient of two mathematical expressions" and as the "relationship between two or more things."

An adequate financial analysis involves more than an understanding and interpretation of each of the individual ratios.

48. Myer John vide Sahaf M.A., Management Accounting - Principles and Practice, p. 32.

49. Chandra Prasanna, Manager's Guide to Finance and Accounting, p. 49.

50. New Webster's Dictionary of English Language (College Edition), Delhi, 1974, p. 1242.

51. Nigam B.M., Lall, Financial Analysis Techniques for Banking Decisions, p. 65



Further more, the analyst requires the insight into the meaning of the inter relationships among the ratios and financial data in the statements.

Ratios simplify the comprehension of financial statements. They tell the whole story as a heap of financial data is condensed in them. Ratio analysis throws light on the efficiency of the business organisation. It permits comparison of firm's figures with data for similar firms and possibly with industry-wise data. And it permits the data to be measured against yardsticks of performance or of sound financial condition.

A study of trend of strategic ratios may help the management in its task of planning and forecasting. It measures profitability and solvency of the concern. At times investment decisions are based on the conditions revealed by certain ratios. In this respect they render valuable aid to the management which is planning the investment of surplus cash; the bank and the creditors.

The ratios can broadly be divided in the following group :

- (a) short-term liquidity
- (b) long-term solvency or structural ratios
- (c) profitability ratios
- (d) turnover ratios and
- (e) coverage ratio.

Under the first group of short-term liquidity the ratios which can be computed are current ratio, acid test ratio, absolute liquidity ratio, inventory to working capital and current liabilities to net worth.

Under the second group, debt-equity, fixed-assets (Net) to tangible net worth, and net worth plus long-term liabilities to net block can be computed. Under the third group of profitability ratios, the ratios which are generally included are gross profit ratio, net profit ratio, return on investment, return on common equity and return on total assets.

Under the fourth group of turnover ratios the ratios which can be computed are, inventory turnover ratio, receivable turnover ratio, average collection period, and asset turnover ratio, whereas in the group of coverage ratios, one can include times interest earned and the fixed coverage ratio.

The above is not the exhaustive list of ratios. According to the requirement the relationships between the two figures or group of figures can be worked out. However, the above combination of ratios throws light almost on all the facets of financial health of an enterprise. In following para is discussed what these each of the ratio indicate and the significance of the same.

(a) SHORT-TERM LIQUIDITY RATIOS :

Current Ratio :

The current ratio is computed by dividing current assets by current liabilities. Current assets normally include cash, marketable securities, sundry debtors (accounts receivable) and inventory and current liabilities consist of sundry creditors (accounts payable) short-term loans and advances, current liabilities and provision for taxes and other accrued expenses.

This ratio indicates the extent to which the claims of short-term creditors are covered by assets that are likely to be converted into cash in a period corresponding to the maturity of claims.

The current ratio of 2:1 is a generally accepted standard, however it varies from industry to industry and within the same industry from company to company and within the same company from season to season.

Acid-test Ratio :

This is also termed as "Quick-Ratio". It is determined by dividing 'quick assets' i.e. cash, marketable securities and sundry debtors by current liabilities. This ratio is a better test of financial strength than the current ratio, as it gives no consideration to inventory which may be very slow-moving i.e. the inventories having ready market can be included while computing this ratio.

A quick-ratio of 1:1 has actually been considered favourable since for every rupee of current liabilities there is a rupee of quick assets. Like current ratio a reasonable standard for the acid-test ratio varies from season to season in a company and from company to company in an industry.

Absolute-liquidity Ratio :

This is even a more rigorous test of financial strength of a firm. This is said to throw light specifically on situations where the cash convertibility of even receivables might be

questioned. Fifty percent is an acceptable standard for the absolute liquidity ratio. What is conveyed by ALR is cash and investments/current liabilities.

Inventory to Working Capital :

This ratio indicates the proportion of inventory to working capital. The ideal standard for the ratio is 0.5:1. This ratio indicates the potential loss that the undertaking may suffer by decline in inventory values.

Current Liabilities to Net Worth :

This ratio measures the relationship between the amount of funds supplied owners and the amount raised by current debts. The relationship between the funds obtained temporarily from the creditors and the investments made permanently by the proprietors of a commercial or industrial business enterprise is significant in that it shows the protection available to short-term creditors. Higher the ratio, lesser the protection and vice-versa.

(b) LONG TERM SOLVENCY RATIOS :

Debt-equity Ratio :

This ratio occupies the first place in the group of long-term solvency. It is almost venerated by bankers and other financial decision-makers. This should be properly called the capital structure or capitalization relationship, for its underlying purpose is to pinpoint the proportion in which owners

and creditors have contributed to the scheme of capitalisation. It gives an idea of the amount of asset "cushion" available to creditors which could absorb operating losses and decreases in asset values. In consequence, the ratio help to judge how far the firm is in a position at present and shall be in a position in a future to meet its indebtedness, and how independent it can feel financially.

Fixed Asset (Net) to Tangible Net Worth :

This ratio also falls in the group of judging long-term solvency. This ratio shows the extent to which ownership funds are sunk in permanent assets, which necessarily have a low turnover. Such capital assets acquired or created by the firm aid production and distribution however, they do not form part of trading operations from anybody's point of view including that of bank, hence, their aggregate proportion should be as low as possible. The reasonable proportion of tangible capital assets to net worth is the best guarantee against overtrading and consequently for a trim financial position.

Net Worth Plus Long-term Liabilities to Net Block :

This ratio examines the extent to which these long-term funds have been used for the fixed block. As a matter of fact, net worth plus long-term liabilities is a capital employed and when this is related to net block it gives clearer picture of financing patterns.

(c) PROFITABILITY RATIOS :

The ratios mentioned in foregoing para shows various measurements available for short-term solvency and long-term solvency of the organisation. The equal importance is given by the management to the profitability aspect of the organisation. Similar to above, various measures are available to judge profitability of the organisation from various angles. Here below is the brief discussion of these measures.

Gross Profit Ratio :

This ratio indicates the relationship between gross profit and sales where gross profit refers to sales minus cost of sales.

This is one of the oldest and widely used financial ratio. It is of value for comparison between two similar business units or among different periods. A steady and adequate rate of gross profit is a reliable evidence of efficient management.⁵²

Net Profit Ratio :

This is the ratio of net profit to sales. This ratio gives a complete picture so far as the firm's performance in relation to sales is concerned.

Return on Investment :

The origin of this ratio is traced to the Dupont Company. As R.S. Kaplan mentions, "The Dupont Company devised an accounting measure, Return on Investment (ROI), to serve both as an indicator

52. Sivasankaran K., Importance of Ratio Analysis In Industrial Advances, IBA Bulletin, 1989, p. 265.

of efficiency of its diverse operating departments and as a measure of financial performance of the company as a whole. The RoI approach was extended in about 1912 by one of the Dupont's financial officers. Donaldson Brown decomposed the RoI calculation in to the product of the sales turnover ratio (sales divided by total investment) and the operating ratio of earning to sales."⁵³

This is a single comprehensive measure that condenses everything happening within an organisation. It is regarded as the basic measure of firm's overall efficiency, not merely of profitability. It is an indicator of the fundamental ability of the management to extract the most out of men, materials and money. This ratio is generally measured by Earning after taxes divided by Net Block Plus Working Capital.

Return on Common Equity :

This ratio is also termed as the investors' ratio. Return on total equity interest is a measure of the success with which directors have managed the company for the benefit of the equity share holders. Here, for the returns net profit after all taxes and interest is to be taken. In this sense it is a fair measure of gauging the earning power of the owner's investment and hence of the success with which the directors manage the company for the benefit of the equity share-holders.

53. Kaplan R.S., The Evolution of Management Accounting - Accounting Review, July, 1984, pp. 397-398.

Return on total equity interest is therefore especially crucial to the financial analyst interested in investing in equity funds or in extending credit for long periods.

Return on Total Assets :

With a view to deriving a meaningful notion of the earning strength of a business, its total assets rather than the equity interest are often taken as a bench mark. This ratio relates the net income of the enterprise to its average total available assets and shows how far the management has exploited the funds furnished by all the concerned groups, owners as well as creditors, to produce sales and profits. Total assets thus represent here the amount invested in plant and working capital rather than the stock holder's invested capital.

(d) TURNOVER RATIOS :

One of the central tasks of financial management is to control and accelerate the funds activity and generate higher sales per unit of assets. Given the number of times the average investment is turned over, it is evident that the higher this velocity, ceteris paibus, the larger is the return on capital employed, and the more efficient is the concern in utilising its resources.

Inventory Turnover Ratio :

This is an important measure of successful merchandising. It is the customary indicator of stock utilisation and mercantile policies of the management. The ratio generally speaking

indicates sales divided by inventory. However, this has two limitations, viz. sales are over a period of time, whereas inventory is at one point of time, hence as a remedy average inventory should be taken and the other limitation of the above formula is that sales is represented at market value whereas the inventory at cost. Hence, instead of sales, it should be taken as cost of sales; and hence the formula for right indicator should be cost of sales divided by average inventory.

The interpretation of this ratio should be with care and with reference to the industry, the company, the method of valuation and such other influencing factors.

Receivable Turnover Ratio :

This is a significant measure of assessing the quality of accounts receivable. It shows the period for which they remain outstanding. This is a good supplementary test of the validity of the current ratio.

Average Collection Period :

The ratio discussed in the above para does not give information directly regarding the days for which a debtor stands, i.e. the number of days the receivables are unsettled on the average. However, management is interested in this information and, this is available from the Average collection period. This is found out by using the formula : $\frac{\text{Accounts Receivable}}{\text{Sales}} \times 365$

Asset Turnover Ratio :

This ratio is calculated by dividing net sales by the net tangible assets i.e. net fixed assets plus current assets. This ratio measures the intensity with which the corporate assets have been utilized by the management. An unduly high investment output ratio indicates over trading on assets, a sluggish low ratio excessive investment in assets concerned. The management, therefore, has to search for the optimal ratio.

(e) COVERAGE RATIO :

Times Interest Earned :

The first among the coverage ratio is the 'times interest earned', signifying the ability of a concern to unload its first burden. If its earnings are insufficient even to cover the interest payments the firm is surely inefficient.

Fixed Coverage Ratio :

This is a supplement to the above ratio. This ratio can be found from the following formula : $(\text{Gross cash flow} + \text{Term loan interest}) \div \text{Total debt Service}$.

The ratio indicates the extent to which the debt services are covered by the cash flow. It gives an idea regarding the liquidity of the organisation of the proposed borrower.

(VIII) CAPITAL BUDGETING :

Investment in the fixed assets (Plant and machinery) involves high amount of funds and the efficient utilisation of

the same determines the productivity and profitability of the organisation. A decision to invest a significant sum in fixed assets usually shapes the structure of business for many years, and a reversal of policy will often involve the sale of assets at a loss as well as leaving the enterprise in a considerably weakened position. Michael Bromwich also includes investment appraisal amongst one of the role of management accounting and he states "this activity includes : the appraisal of long-term physical investments and investment programmes :

- Funding of accepted projects
- Post audit of accepted projects."⁵⁴

The detailed technique of investment appraisal or capital budgeting decision are kept out of purview of discussion, however, the brief review of methods is presented here.

For any capital project investment the two main important aspects are (a) funds to be allocated and (b) the selection of project.

For part (a) main important questions will be (i) how much money is going to be needed for capital expenditure in coming planning period (ii) how much money is going to be available in total for such proposed investment (iii) how are available funds going to be assigned to the projects under consideration ?

54. Bromwich Michael, Managerial Accounting - Definition and Scope from a managerial view. Management Accounting, September, 1988, p. 26.

So far as selection of projects is concerned the scientific evaluation process are available. the techniques which are widely used are : (i) pay back method (ii) accounting rate of return (iii) time adjusted rate of return calculated by - present value method or internal rate of return.

(i) Pay back method :

Here the length of time required for the stream of cash proceeds produced by investment to be equal to original cash outlay is worked out. This method talks about the term required to recover the capital cost.

(ii) Accounting Rate of Return :

Under this method, the capital employed and related income are determined, however, for determination of income there exists variety of methods. Here one can use (a) income before taxes and depreciation or (b) income after tax but adding back depreciation or (c) income after tax and after depreciation.

(iii) Time Adjusted Rate of Return :

The pay back method considers the term in which capital investment can be recovered, and the accounting rate of return indicates the earnings on account of investment, however, both of them do not take into consideration the time value of money. What is conveyed by time value of money is that a rupee today has higher value than a rupee tomorrow in a simple sense of the term; and hence the returns which are to occur over the life of

asset cannot be taken as the total return today. The NPV and IRR method takes into consideration this aspect and hence they are known as Time Adjusted Rate of Return.

Net Present Value Method :

Here what is the expected rate of return is determined by the investor in advance. Once this rate is determined the expected returns are discounted to present point of time to find out the present value of returns and if the present value of expected returns is higher than the investment, then only the investment decision is taken. For e.g. if the investor expects to have 15% of the rate of return, the present value of Re.1, to be received one year from today will be

$$PV = \frac{1}{(1 + .15)} = 0.8696$$

Similarly, the present value of Re.1 to be received two years from now will be $PV = \frac{1}{(1 + .15)^2} = 0.7561$

with each of this present value factor, the amount of estimated returns will be multiplied and addition of present value of estimated returns over a period of time will give the present value of estimated returns.

Now if these present value of estimated return is higher than the amount of investment required, investment decision will be taken by the management.

Internal Rate of Return :

This is also a method where the time-value of money is taken into consideration; however the expected rate of return is not determined here in advance and hence discounting is not made at a decided rate. However, the rate of return is estimated here by trial and error, i.e. on the one hand there is an amount of investment for which decision is to be taken. On the other hand the returns are estimated over a period of time and discounting of the same is made at various rates one after the another. The internal rate of return is that rate where the investment (=cost) equates the present value of returns. If this rate of rate of return is acceptable to the management, they take the investment decision.

Detailed discussion about pros and cons of each of these techniques, problems about ranking of the project when alternative projects are available, problems of capital rationing, capital budgeting decisions under the circumstances of uncertainty etc. are kept out of purview of discussion.

In this section are discussed the major techniques of the management accounting. All these techniques except that of capital budgeting are included under study for examining the application thereof while taking lending decisions by commercial banks. The importance of this techniques from the point of view of lending officer is pointed out (discussed) in the Chapter III, alongwith the questions which were put to the selected lending officers.

Before discussion of significance of questionnaire it is considered necessary to discuss some of the important development in the lending portfolio of commercial banks over a period of time. These developments are discussed in Section II.

SECTION II

BANKING DEVELOPMENT

This section attempts to examine the development of banking in general and of lending function in particular, in India over a period of time.

EVOLUTION :

Although evidence regarding the existence of money lending operations in India is found as early as the Rgveda⁵⁵ the earliest document in the vedic literature no information is available regarding their pursuit as a profession by a section of the community till 500 B.C.⁵⁶

"Modern banking in India was founded by Europeans with the setting up of Agency Houses, which subsequently were transformed

55. (a) Macdonell A.A. and Keith A.B., Vedic Index of Names and subjects, Vol. I, p. 109.

(b) A.A. Macdonell assigns the Rgveda to a period between 2000 B.C. to 1400 B.C. : A Vedic Reader for Students, pp. xi - xii and Maurice Winternitz assigns the Rgveda a period 2500 B.C. - 2000 B.C., A History of Indian Literature, Vol. I, p. 310.

56. Panandikar S.G., Banking in India, p. 1.

into Presidency Banks and they in turn into Imperial Bank of India, which was subsequently nationalised and named as State Bank of India."⁵⁷

"Nationalisation of Imperial Bank of India, in 1955 and designating it as State Bank of India, take over of eight state associated banks in 1959 and affiliating them to SBI as its subsidiaries, introduction of social control schemes in February, 1969 a fullfledged nationalisation of 14 major banks in July, 1969, setting up of Regional Rural Banks in 1975, the launching of Integrated Rural Development programme in 1978, the second phase of nationalisation of 6 leading banks in 1980 and establishment of National Bank for Agriculture and Rural Development in 1982 can be mentioned as some of the important landmarks in Indian Banking Scene."⁵⁸

"Since nationalisation in 1969 dramatic changes have occurred in the profile of Indian banking. The banks were called upon to play the role of a development agency. In this new role, they were assigned a variety of socio-economic responsibilities. They have entered a new era of 'mass' banking in lieu of what was hitherto called 'class' banking. The banking system thus emerged as a catalytic agent in accelerating the economic growth in the context of the Five Year Plans".⁵⁹ This

57. Chandrayya Vasireddy, Bank Credit in India, p. 206.

58. Ibid., p. 206.

59. Basu C.R., Commercial Banking in the Planned Economy of India, p. ix.

"banks as purveyors of credit to the trade and industry, have known to operate within the ambit of economic and credit policies, operative at a given point of time."⁶⁰

"The commercial banks provide a range of services to satisfy the financial needs of all types of customers from smallest personal account holder to the largest company. These services can be grouped under the following headings :

(i) deposits (ii) lending (iii) money transmission (iv) financial and advisory services (v) foreign services."⁶¹

As far as banks profitability aspect is concerned it may be noted that of the total income of nationalised banks for the year 1990-91, interest income constituted 92.1%.⁶² This indicates the importance of credit portfolio in the banking world.

According to Harfield "credit is the corner stone of society In its raw state, credit is reliance. It is each man's faith that his neighbour will carry out whatever engagement he has taken. Credit is made up of three elements; the acceptance of duty by an obligor, the presumed ability of the obligor to perform that duty, and availability of social sanction in the form of law to compel performance or a compensatory substitute for performance."⁶³

60. Krishna murthi M., "Financing of Industrial Operations - Forty years in Retrospect - State Bank of India Monthly Review, Vol. 27(6), 1988, p. 276.

61. Khan Masood Ahmad, Banking in India, p. 34.

62. Reserve Bank of India Bulletin, 1992, Supplement : Report on Trend and Progress of Banking in India, 1990-91, July-June, p.86.

63. Harfield Henry, Bank Credit and Acceptances, p. 3.

On account of the drastic changes in the banking structure, the importance of credit portfolio in the varied portfolio of banking system and its unique nature, the credit function has undergone changes over a period of time in the Indian Scenario.

"Traditional banking emphasizes three criteria : safety, liquidity and profitability; roughly in that order. It serves very well the bankers' and borrowers' interests. Allocation of credit and rationing of credit to serve society's interest as and when necessary, are almost completely outside its framework of operations."⁶⁴

As pointed out by, H.N. Kunden, "Prior to nationalisation of commercial banks, credit extended by these banks was not need based; i.e. quantum of credit given was not what particular industry needed but related to value of security they can offer and/margin they can provide. This resulted in piling up of large quantity of raw materials irrespective of the industries need. There was no regular appraisal of credit need."⁶⁵

Tandon Committee Report makes a remark on transitory phase of lending system in India." The banking system was asked to adopt a new approach as a credit agency, based on development and potential rather than on security only to assist the weaker sectors of society and later to lend to public sectors also.

64. Singh Sampat P., Ideas on Bank Credit : A Historical Account; Bank Lending : Some Controversial Issues (Ed.), Singh Sampat, P., p. 62.

65. Kunden H.N., Financial Planning and Working Capital Management : The Banker, June, 1989, p. 25.

Significant sectors of economy, which were outside the scope of bank lending have now been brought within its ambit."⁶⁶

When the system of credit is totally security based, it is the only aspect under consideration while taking lending decision and hence no other factors have any place in the process of loan decision. However, as commented by National Credit Council's study Group No. 2 "the security oriented approach to lending had led to over financing of industry in relation to production trends as also with reference to inventory to industry."⁶⁷ Here it is important to note a remark on CAS, "It (CAS) has been instrumental in the process of transforming the earlier security approach to bank lending to asset based approach."⁶⁸

In his letter addressed to Chairman of all scheduled commercial banks dated November 30, 1978 Dr. I.G. Patel, the then Governor, RBI also stated that "credit has to be necessarily related to increase in output, economic activity, employment creation and so on."⁶⁹ On the similar lines S.P. Singh mentions that "Credit is, therefore, a scarce national resource which needs to be used efficiently under conditions of inflation as well as deflation, or shortage as well as surpluses, so as to

66. Report of the study group to frame guidelines for follow up of Bank Credit : Reserve Bank of India, Bombay, 1975, p. 1.

67. Ibid., p. 10.

68. Credit Authorisation Scheme, Journal of Banking Studies, Volume 11(1) January-March, p. 17.

69. Credit Policy : RBI Governor's Letter to Scheduled Commercial Banks : The Journal of Indian Institute of Bankers, Vol. 49, October-December, 1978, p. 182.

achieve optimum credit multiplier. Efficient credit allocation and planning are necessary to minimise wastage and misuse of bank credit."⁷⁰

The Tandon Committee recommended "that the banking system should turn to financing of industry on the basis of a total study of borrower's operations rather than on security considerations alone."⁷¹

When the borrower's total study is invited while taking the loan decision, it calls for application of various tools and techniques for analysis of borrower's past, present and future probable organisational health.

It is here that the borrowers need to plan their action in advance. As Tandon Committee Report states that, "any new system should in particular make customer plan his credit needs in advance and observe discipline in use."⁷² It further emphasises that "in order to ensure that customer's do not use new cash credit facility in an unplanned manner and thus create same problems as are faced in a present system, we recommend that the financing should be placed on a quarterly budgeting, reporting system for operational purposes."⁷³

70. Singh Sampat P., RBI Study Group on follow-up of Bank Credit, Journal of the Indian Institute of Bankers, Vol. 47, October-December, 1976, p. 194.

71. Report of the Study Group to frame guide-lines for follow-up of Bank-Credit : Reserve Bank of India, Bombay, 1975, p. 10.

72. Ibid., p. 15.

73. Ibid., p. 33.

In their recommended scheme the committee states that "It is in the customer's own interest to plan its operations, if he is to be assured by the banker of adequate credit to meet his genuine production needs."⁷⁴ "The borrower should, therefore, furnish an operating statement and funds-flow statement for the whole year (i.e. the next year) as also a projected balancesheet as at the end of the next year".⁷⁵ "The quarterly operating system and funds flow statement will constitute a segment of the annual plan submitted earlier and the banker will see whether the quarterly plan is more or less in line with earlier expectations."⁷⁶ "The banker will, therefore, need to know: Is the borrower keeping to the original plan of operations and are costs, sales, profits and funds flow according to plan?"⁷⁷

"The two basic financial ratios which a banker will always look to are the debt - equity ratio (i.e. total outside liabilities to equity) and current ratio."⁷⁸ Chore Committee Report has also emphasised the tool of planning by emphasising the quarterly information system. It is stated that "the borrower should be asked to give his quarterly requirement of funds before the commencement of the quarter on the basis of his budget, the

74. Ibid., p. 37.

75. Ibid., p. 37.

76. Ibid., p. 38

77. Ibid., p. 40.

78. Ibid., p. 49.

actual requirement being within the sanctioned limit for the particular peak level/non-peak level periods."⁷⁹

With the implementation of the Chore Committee recommendations by RBI, borrowers with credit limit of Rs.5 Million or more were additionally required to ensure that their current assets were financed to the extent of at least 25 percent through long-term funds which in effect meant maintenance of a minimum current ratio of 1.33:1 as compared to 1:1 for other borrowers."⁸⁰

After the Tandon and Chore Committees on establishment of norms and review and follow-up of the same, the Marathe Committee was appointed with a specific task of review of CAS. The main recommendation emphasised the disbursement of credit to the borrower on fulfilling certain conditions which are subject to post disbursement verification. The conditions to avail this facility of fast track were quite comprehensive which emphasised

- *(i) Reasonableness of estimates/projections in regard to sales, chargeable current assets, other current assets, current liabilities (other than bank borrowing) and net working capital
- (ii) Classification of current assets and current liabilities, in conformity with the guidelines issued by the Reserve Bank
- (iii) Maintenance of minimum current ratio of 1.33:1 (except under exempted categories)
- (iv) Prompt submission of quarterly

79. Report of the Working Group to Review the System of Cash Credit: Reserve Bank of India, Bombay, 1979, p. 51.

80. Report of the Committee to Review the Working of the Monetary System. RBI, Bombay, 1985, p. 185.

operating statements by the borrower, for the past 6 months with an undertaking to do so in future also and (v) An undertaking by the borrower to submit his annual accounts promptly and regular annual review being carried out by the bank even where enhancement in credit facility is not involved.⁸¹

A review of the recommendations of these various committees one after the other indicates the following : The National Credit Council changed the emphasis from security oriented to purpose oriented advances. The Tandon Committee established the norms for inventory and gave the methods of lending. The Chore Committee simplified the forms of QIS and emphasised on separate limit for peak season and non-peak season. The Marathe Committee provided an incentive of fast track system to borrowers fulfilling the comprehensive requirements.

The Chakravorthy Committee Report suggested the bifurcation of credit limit in 3 parts as cash credit I (covering supplies to government), Cash credit II (covering special circumstances or contingencies) and normal working capital limits covering the balance of the credit facilities, which in their opinion would enable banks to monitor trends in outstanding."⁸²

The Vagul Committee in turn speaks about a gradual shift to bill financing from facility of cash credit/overdraft so far as receivables are concerned.⁸³

81. Report of the Committee to Review Working of the Credit Authorisation Scheme, RBI, 1983.

82. Report of the Committee to Review the Working of the Monetary System - RBI, Bombay, 1985, p. 203 & 206.

83. Report of the Working Group on the Monetary Market, RBI, Bombay, 1987, p. 16.

The change in the basis of lending in India is very rightly summarised by S.P. Singh in the following words. "To begin with in India, the accepted basis was the lending to a person on the strength of his personality and character. The banker relied on his signature Later we shifted, to the lending against security basis For industrial advances it has also proved irrelevant The meaningful basis today, therefore, is the financing of the industrial operations. The determination of the need for advance, the viability of the proposal and the subsequent follow-up are all to be checked with reference to the level and the quality of industrial operations of the borrower, particularly its ability to generate funds."⁸⁴

The above mentioned brief survey pictures the gradual improvement and strengthening of the discipline in the credit portfolio over a period of almost two decades.

On a look to the banking statistics over a period of two decades reveals that the number of branches have increased at a drastic speed over a period of two decades from 8262 in June, 1969 to 60570 in March, 1992, total credit between the above two dates have increased from Rs.3599 crores to Rs.131520 crores and deposits have increased from Rs.4646 crores to Rs.237566 between the above period.⁸⁵ i.e. the banking sector has grown up by leaps and bounds. As D.N. Ghosh puts it "Since nationalisation they

84. Singh Sampat P., The Lending System in Transition, Prajnan, January - March, 1981, Vol. x, no. 1, p. 38.

85. Banking Statistics : Basic Statistical Returns : Volume 20, March, 1991, RBI, p. 1.

have recorded phenomenal growth, unparalleled in the world."⁸⁶

Hence it can be said that to cope up with the drastic expansion, particularly on the side of credit, where, the best use of funds is required to be made by banks, the various committees as stated above were appointed, which have thrown light on the various aspects of credit portfolio, and as rightly mentioned by A.R. Varadhan "in the context of a growing economy and continuous demand from industrial borrowers for bank finance, the guidelines issued by RBI under the recommendations of various committees set up by them will be a useful tool for bankers as well as borrowers to ensure proper and productive end use of funds."⁸⁷ However, as Ramachandra Rao has rightly stated, "banks are lending institutions, but all loans disbursed may not prove to be good loans in the sense that some of them are bound to become bad-debts to be written off."⁸⁸

To look into this problem which is more acute in the priority sector and particularly in agricultural advances, a committee was appointed under the Chairmanship of A.M. Khushro, who has noted the figures of overdues to be 48.4%, 45.8% and

86. Ghosh D.N., Commercial Banking : Lessons from Indian Experience : The Journal of Indian Institute of Bankers, Vol. 60, No. 1, January-March, 1989, p. 45.

87. Varadhan A.R., Role of Commercial Banks in Working Capital Management : The Banker : August, 1988, p. 39.

88. Ramachandra Rao B., Current Trends in Indian Banking, p. 119.

43.4% respectively for the years 1983-84, 1984-85 and 1985-86 which are the percentage of overdues to demand.⁸⁹

Banking statistics upto year 1990 doesnot publish data regarding the overdues or of the health status of the advances. It is interesting to note that it is only for the year 1991, for the first time that the data are published regarding the health status. Accordingly 7.7% of the outstanding credit each above Rs.25000 are falling in the health code 5, 6, 7 and 8. Also out of the reporting branches 19% of advances are shown to be overdue.⁹⁰

Even before ten years S.P. Singh has observed that, "there are enough facts to show that the quality of bank lending to industry has been declining in recent years. The number of sick, frozen, difficult problem and irregular accounts have been rising alarmingly."⁹¹

The application of interest on accrual basis, on non-performing account, distorts, the fair view of Bank's profitability and in the light of this the Narsimham Committee "recommends that in respect of banks and financial Institutions which are following the accrual system of accounting, no income should be recognised in the accounts in respect of non-performing assets."⁹²

89. A Review of Agricultural Credit System in India, RBI, Bombay, 1989, p. 541.

90. Banking Statistics - Basic Statistical Returns - Volume, 20, March, 1991, Reserve Bank of India, p. 25.

91. Singh Sampat P., The Lending System in Transition - Prajnan, January-March, 1981, pp. 38-39.

92. The Financial System - A Nabhi Publication, 1992, Report by M. Narasimham, p. 6.

A first step in direction of analysis of advance portfolio, according to its health was introduction of health code system since 1985; according to which the banks are required to divide the advance portfolio as follows :

Satisfactory; irregular; sick.viable/under nursing; sick-non-viable/sticky; debts recalled; suitfiled accounts; decreed debts; and bad and doubtful debts. "As a prudent accounting practice of cessation of interest application on non-performing loans, banks were advised in May 1989 not to charge and take to their income account interest on loans classified under Health code classifications 6, 7 and 8 from the quarter in which individual accounts are classified under these categories. As a further step towards greater transparency in bank accounts and with a view to ensuring that recognition of income is done on a more prudential basis, banks were advised in October, 1990 that from the accounting year 1990-91 they should not charge and take to their income account, interest on advances classified under Health Code classification 5 also from the quarter in which the individual accounts are so classified."⁹³

However, so far as this Health Code system is concerned a research study by Karunasagar states that "the responses show wide variance and uniformity of classification was missing."⁹⁴

93. Reserve Bank of India Bulletin 1992, Supplement : Report on Trend and Progress of Banking in India, 1990-91, p. 80.

94. Karunasagar, Credit Monitoring System - A Review of Health-Code Classification of Borrowal Accounts by commercial Banks - A thesis submitted to NIBM, Pune, for Post Graduate Diploma in Bank Management, 1990-91, p. 17.

By a circular dated 27th April, 1992 a new base of asset classification has been specified in addition to present health code system and accordingly advance portfolio is to be classified in 4 categories as standard assets, substandard assets, doubtful debts and loss assets. This classification is intended to provide the basis for determining provisions for loan losses.⁹⁵

By a circular dated March 23, 1993 the extent of provision has to be declared and accordingly "banks should make 100% provision in respect of loss assets and not less than 30% of the total provisioning needed in respect of sub-standard advances, doubtful advances and advances with outstanding balance of Rs25000/- and less during the year ending March, 1993. The balance of provisioning needed in respect of the above categories of advances not provided for as on 31st March 1993 together with the fresh provisioning needed in respect of credit facilities identified in the year ending 31st March, 1994 should be made as on date."⁹⁶

Thus over and above the advances which are categorised as sub-standard, doubtful or loss-assets, the provision is required to be made for 100% of loan amount outstanding below Rs.25000/- by March, 1994. This necessarily indicates that the loan amount of less than Rs.25000/- is not considered good.

95. RBI Circular No. BPBC 129/21.04.043.92 dated 27th April, 1992, Vide, The Chartered Accountant, March, 1993, p. 849.

96. The Chartered Accountant, April, 1993, p. 879 : RBI Circular No. DBOD No. BPBC 95/21.04.048.93 dated March 23, 1993.

It is important to note here that the accounts to which loan amount given is upto Rs.25000/- constitutes 94.9% of total number of accounts to which advances are given and it constitutes 22% of the amount of outstanding advances as on March, 1991.⁹⁷

Figures as on March, 1993 are not available, however, one can assume that there would not be much difference than the above percentage and this indicates the seriousness of the deteriorating quality of the advance portfolio.

Here it is of interest to note some of the aspects pointed out by Bala Shanmugam; following are the aspects which a lender must remember, not just in relation to problem loans, but for loans in general are :

- (i) any loan can become a problem loan;
- (ii) ^{early} detection of problem is of utmost importance;
- (iii) a coherent strategy must be designed
- (iv) the borrower must respond to the advice
- (v) a business is more than mere figures
- (vi) figures can be used to conceal more than reveal; and
- (vii) close monitoring of borrower's business at all times is essential".⁹⁸

It is for the first time that the concept of transparency of accounts has been introduced in the bank's accounting system, by the recommendation of the Narasimham Committee. As put in

97. Banking Statistics : Basic Statistical Returns, Volume : 20, March, 1991, RBI, p. 10.

98. Shanmugam Bala, Managing Problem Loans : The Banker, December, 1987, p. 29.

para 14 "the committee believes that the balancesheets of banks and financial institutions should be made transperent and full disclosures made in the balancesheets as recommended by the International Accounting Standards Committee."⁹⁹

Prior to this recommendation situation in India was prevailing as stated by Datta Bhabatosh : "no one knows what the really bad debts amount to, for banks are legally permitted to show their bad debts as 'nil' and then to provide unstated amounts as reserves against bad debts."¹⁰⁰

This section discusses the development in the lending portfolio of commercial banks, the problems arising at the stage subsequent to the sanction of the loan and increasing emphasis on the transperancy of bank accounts.

CONCLUSION :

This chapter which is divided in two sections has discussed the evolution, definitions, scope and techniques of management accounting in Section I and development of Banking Scenario in general and lending portfolio in particular is discussed in Section II of the chapter. This forms a base for the study in broad sense.

99. The Financial System : Report by M. Narasimham, A Nabhi Publication, p. 6.

100. Datta Bhabatosh, Banks : 18 Years after nationalisation, The Banker, April, 1988, p. 24.

Also, in the case of study based on primary data collection the questionnaire plays a role of a pillar and hence, the next chapter, i.e. Chapter III is devoted to discussion of contents and significance of the questionnaire.