CHAPTER IV
FINANCIAL ANALYSIS - A CONCEPTUAL FRAMEWORK

By and large the rapid development of modern Management Accounting techniques has advanced far more in the production-oriented industries than in the distributive, or service type of organisation. Most of the methodologies evolved have been developed in manufacturing concerns and the terminology used is also indicative of this. While devising the different devices of management accounting so far, more emphasis has been laid on the preparation of the terminology on 'Management Accounting for Bankers' rather than on 'Management Accounting in Banks'. Therefore, the different sets of ratios, which can be computed and used while interpreting the solvency, liquidity, efficiency and profitability position, cannot be used in measuring the performance of banking industry unless some suitable ratios are constructed, because the very nature of the business to be transacted by the banking industry is quite different from the nature of business to be transacted by manufacturing or merchandising organisations. In view of this, the present chapter aims at presenting the framework of various concepts and ratios which are useful for analysis and

interpretation of the financial and operating statements of banking institutions.

The whole chapter is divided into three sections. The first section describes the role of financial analysis in financial institution, the financial analysis as a process and the types of financial analysis which may be relevant for the purpose of application to Banking Institutions. The second section deals with the conceptual clarity of certain words made use of in the study. The third section gives a list of ratios for the analysis of working capital position, deposit-mix, credit management and appraisal of cost and profitability of the DCCBs.

Section - I

Financial Analysis and Banking Institutions

The banking institutions in India are under statutory obligation to prepare and publish the final accounts, viz., the profit and loss account and the balance sheet. The balance sheet reports institution's (financial or industrial) assets and liabilities or financial position at a particular point in time and the income statement, the net result of operating activity of an undertaking during a particular
period of time. The former statement resembles a "Still" photograph portraying the structure of assets, liabilities and net worth and the latter statement, a moving picture. Neither of these shows the following:

(i) the nature of management policies,
(ii) the character and conduct of the management,
(iii) professional-oriented outlook,
(iv) profitability of investment policies,
(v) causative factors for mounting overdues,
(vi) impact of a particular deposit mix or a loan portfolio policy on the net income of financial institution,
(vii) impact of monetary and government policies on mobilisation and deployment of financial resources;
(viii) ability to meet its current obligations,
(ix) trend in the growth of deposits,
(x) deployment of financial resources in a particular area for the development of the same area or migration of a certain portion of such resources for the development of some other area elsewhere;
(xi) financial strength or weakness;
(xii) operating diseases such as Over-financing and/or under-financing;
(xiii) impact of credit policies on the economic well-being of rural masses and the growth of deposits out of incremental savings generated;
(xiv) savings habit of rural households and institutions;

(xv) causative factors for the rise/fall in deposits, volume of loan business and profitability;

(xvi) the quality and efficiency of management, etc.

No doubt, these twin statements mirror the net result of operating activity during a particular period of time and the nature of its financial position at a particular point of time. They merely do the function of a mirror. A mirror gives only reflection of an object. It reflects only the position or physical personality but not the inner-heart health or character or efficiency. Therefore, in order to examine the health or evaluate the character, the financial manager is badly in need of some other apparatus. Financial Analysis serves this purpose. Through this, he can have an insight into the financial health and character of any corporate body or financial institution. "It is only the analysis that helps an interested reader in giving tongue to the dumb heaps of figures which in turn help in achieving ultimate aim of interpreting financial statements".  

Concept of Financial Analysis:

Accounting is the language of business. The Accounting Terminology Bulletin No. 1 of the American Institute of certified Public Accountants defines accounting as follows: 3

"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 a financial character, and interpreting the results thereof."

Thus, accounting is a process consisting of the following activities:

(1) recording,
(2) collecting,
(3) classifying,
(4) summarising,
(5) analysis,
(6) interpretation, and
(7) reporting.

Financial Analysis is a process of understanding the implications of financial and operating statements by

collecting, re-grouping, analysing, comparing and interpreting by adopting various tools and techniques such as ratios, trends or percentages, with a view to pinpointing the brighter and darker aspects of a particular undertaking. Financial Analysis, therefore, is the last phase in the process of Accounting. In this last phase of accounting, the raw-material, (i.e., financial and operating data), which is the end product of traditional financial accounting, is processed. In the words of Kulashreshta, "Figures are dumb. However, they may tell a vivid story of the financial adventures of an enterprise, if analysed. Financial Analysis is a process of synthesis and summarisation of financial and operative data with a view to getting an insight into the operative activities of a business enterprise. It is a technique of X-raying the financial position as well as the progress of company". 4

**Steps in Financial Analysis:**

Financial Analysis includes the following steps:

1. Identification of the purpose of interpretation, i.e., objectives of the study - whether to test liquidity position or to evaluate the operating efficiency in mobilising financial

---

resources and deploying the same, or to examine the financial strength and the like of a particular bank in respect of a single year or several years or with those of other banks for a single year or several years;

(ii) Select the type of financial analysis, (i.e., whether static or dynamic analysis, intra-bank and inter-bank analysis, intra-bank static or dynamic analysis, inter-bank static or dynamic analysis, etc.) depending upon the objectives of the study;

(iii) Collection of suitable and relevant data either from internal sources or external sources or both;

(iv) Classification and reclassification of collected data;

(v) Analysis of data;

(vi) Computation of desired ratios;

(vii) Interpretation in the light of surrounding political, social and economic environmental factors;

(viii) Reporting the findings and concluding remarks to the management.
Types of Financial Analysis:

The Chart No. M.1 gives clear idea of different types of financial analysis.

1. **Internal Financial Analysis:**
   It implies interpretation of the financial statements by the internal management for managerial decision-making or management control.

2. **External Financial Analysis:**
   It implies interpretation of the financial statements of the desired organisation by the external parties for the purpose of arriving at investment decisions, etc.

3. **Intra-bank static overall Analysis:**
   It implies evaluation of operational efficiency of entire organisation for a single year.

4. **Intra-bank Static Partial Analysis:**
   It implies evaluation of financial soundness or operational efficiency of a particular segment of an organisation for a single year.

5. **Intra-bank Dynamic Overall Analysis:**
   It implies interpretation of financial statements
CHART IV-1:
TYPES OF FINANCIAL ANALYSIS.

INTERNAL ANALYSIS.

OVERALL

PARTIAL.

STATIC.

DYNAMIC.

STATIC.

DYNAMIC.

EXTERNAL ANALYSIS.

OVERALL.

PARTIAL.

STATIC.

DYNAMIC.

STATIC.

DYNAMIC.

INTRA-BANK

INTER-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK

INTER-INTRA-BANK
of a particular undertaking covering all the facets of its working for a selected number of years.

(6) **Intra-bank Dynamic Partial Analysis:**

It covers the study of a particular segment of an undertaking for a selected number of years.

(7) **Inter-bank Static Overall Analysis:**

It covers the study of all the functional areas of more than one bank for a single year.

(8) **Inter-bank Static Partial Analysis:**

It covers the study of a particular functional area of more than one bank for a single year.

(9) **Inter-bank Dynamic Overall Analysis:**

It covers the study of all the functional areas of more than one bank for a selected number of years.

(10) **Inter-bank Dynamic Partial Analysis:**

It covers the study of a particular functional area of more than one bank for a selected number of years.
Analysis and Interpretation - Defined and Distinguished:

Analysis and interpretation go hand-in-hand. They are complementary to each other. Without analysis, interpretation is impossible, because complex, aggregate, quantified absolute figures embodied in final accounts are not suitable while interpreting the financial and operating results.

Analysis is the process of breaking down or dissecting the complex components (statements) into simple minute elements or constituents of a particular group to establish significant relationships between the constituents of the same statement as also different statements. "Just as the chemist analyses a compound in order to understand its elements, analysis is also required to interpret financial statements. This is essentially done through the tools such as comparative statements, common size statements and ratio analysis. These tools may be compared with the laboratory tests which aid a physician in diagnosis of a malady".  

Interpretation, on the other hand, compels the computed ratios to speak themselves by imparting life

---

to them. "It means the explanation of a thing in intelligible terms to convey its meaning". Interpretation is a mental process of understanding the implications of the financial statements. It requires analytical bent of mind on the part of financial analyst and ability to give expression with regard to particular situation by correlating the results of events taken place in the internal environment with the changes taken/taking place in the external environment.

Section - II

Definition of Certain Concepts Used in the Study

1. **Credit:**

   In this study, the term credit refers to co-operative credit provided by the DCCBs to the PACSs.

2. **Co-operative Year:**

   It is a time segment which commences on 1st July and ends on 30th June of every calendar year.

---

3. **Short-term Credit:**

It signifies a credit extended by the DCCBs or loan taken by the PACSs for the purpose of short-term agricultural operations and marketing of crops and is repayable within one co-operative year.

4. **Total Short-term Loans (STLs):**

Short-term credit for Agricultural operations (SAO Loans) plus Short-term credit for marketing of crops.

5. **Short-term Credit for Marketing Crops:**

It is the credit granted by the DCCBs to PACSs for the purpose of marketing of crops and is repayable as soon as the harvest is over.

6. **Medium-term Credit:**

It refers to credit given by the DCCBs to PACSs for the purpose of meeting medium-term agricultural credit requirements (such as purchase of cattle, equipments, sinking of wells, etc.) and is repayable within the period of five years.

7. **Medium-term (Conversion) Credit:**

It signifies short-term loans granted to PACSs but which have been converted into medium-term credit on account
of inability of the PACSs to repay the short-term credit due
to natural calamities, etc.

8. **Cash Credit:**

It is a financial limit sanctioned to PACS up to
which it can draw at any time. It is the most economical
form of financial assistance available to PACSs, particularly
for the non-agricultural business purposes.

9. **Recoveries from the PACSs:**

Credit outstandings from the PACSs to DCCBs at the
beginning of the year plus Advances made during the year
minus credit outstandings at the end of the co-operative
year.

10. **Total dues from the PACSs:**

Credit outstanding from the PACSs at the beginning
of co-operative year plus Advances made during the year.

11. **Total Overdues against PACSs:**

It represents the aggregate of the overdues in
respect of SAO loans, STLs for marketing of crops, MTLs
for agriculture, MTLs for conversion and cash credit facility.
12. **Total Outstandings against PACSs:**

It signifies the aggregate of loans outstanding from the PACSs at the end of co-operative year in respect of the different types of credit mentioned above.

13. **Overdue:**

It refers to loans which could not be recovered within the stipulated period of time from the PACSs by the DCCBs. Normally, on the expiry of a period of three months after the dead line fixed by the DCCBs, a penal interest rate of 3 per cent is charged along with ordinary interest rate. If the debt is not repaid within three months' period, it becomes overdue.

14. **Loans Outstanding from the PACSs:**

It represents total loan obligations of the PACSs towards the DCCBs which remain unpaid at the end of co-operative year.

Putting it in the form of formula, Loan Outstanding = Regular yearly loans granted to PACS which have become due for payment but which are not paid plus past unpaid loans which are carried forward from year to year.
Thus, overdue is a part of loans outstanding. Overdue signifies more risk of loss than the loan outstanding.

15. **Working Capital:**

In Accounting Terminology, the term Working Capital usually signifies the difference between current assets and current liabilities. However, the difference between these two may not always be the working capital; because the difference may be either positive or negative. If the gap is positive, it should be termed as working capital; if the gap is negative, it is termed as working capital gap or deficit working capital.

But the term working capital in the study is used in a different sense. It is the aggregate of share capital, reserves and surplus, deposits and borrowed funds. In other words, the term working capital used in the study represents the total investment made by a particular DCCB in its banking business.

16. **Owned Funds:**

They are the aggregate of the share capital and the reserve funds and other reserves. They are the claims of the owners of the DCCBs against the resources of the DCCBs.
17. Internal Equities:
The terms 'owned funds' and 'internal equities' are used interchangeably.

18. External Equities:
They are the aggregate of the borrowed funds and the different deposits collected by the DCCBs. They represent the claims of the depositors and financing agencies against the resources of the DCCBs.

19. Total Dues to the Apex Bank:
Loans outstanding to the Apex Bank from the DCCBs in respect of borrowing for different purposes plus Borrowings from the Apex Bank during the co-operative years.

20. Borrowed Funds:
They are the funds borrowed by the DCCBs either from the Apex Bank or from other banks in the organised sector of the money market.

21. Cost of Management:
It comprises establishment charges and contingencies. In other words, it is the aggregate of salaries paid and other expenses incurred by the DCCBs during the particular co-operative year.
22. **Other Expenses:**
These are the aggregate of the rent paid, depreciation and other contingencies and expenses.

23. **Gross Income:**
Cost of management plus net profit.

24. **Rate of Return on Investment:**
It represents the percentage of profit on working capital of the DCCBs.

25. **Rate of Return on Internal Equities:**
It signifies the percentage of earnings to equity shareholders of the DCCBs.

---

**Section - III**

(A) **Ratios for Working Capital Analysis**

(1) Percentage of Owned Funds to Working Capital,

(2) Percentage of share capital to working capital,

(3) Percentage of Reserves to Working Capital,
(4) Percentage of Share Capital to Owned Funds,
(5) Percentage of Reserves to Owned Funds,
(6) Percentage of Borrowed Funds to Working Capital,
(7) Percentage of Deposits to Working Capital,
(8) Percentage of Owned Funds to Deposits,
(9) Percentage of Owned Funds to Borrowed Funds,
(10) Percentage of Internal Equities to External Equities,
(11) Percentage of Total Overdues to Total Outstandings against PACSs,
(12) Percentage of Total Recoveries to Total Dues from the PACSs to the DCCBs,
(13) Percentage of Repayments to Total Dues to the Apex Bank from the DCCBs.

(B) Ratios for Analysis of Deposits:
(1) Percentage of Current Deposits to Total Deposits,
(2) Percentage of Savings Deposits to Total Deposits,
(3) Percentage of Fixed Deposits to Total Deposits,
(4) Percentage of Deposits by Individuals and others to Total Deposits,
(5) Percentage of Deposits by Co-operative Societies to Total Deposits.
(C) **Ratios for Analysis of Credit Management by DCCBs:**

(I) **Analysis of Deployment of Funds:**

(a) **Analysis of Short-term Loans for Agricultural Operations:**

1. Percentage of SAO Loans to Total Short-term Loans issued to PACSs,

2. Percentage of SAO Loans issued in cash to Total SAO Loans issued to PACSs,

3. Percentage of SAO Loans issued in kind to total SAO Loans issued to PACSs,

4. Involvement of DCCBs in providing SAO Loans to PACSs - Percentage of borrowings from the Apex Bank for SAO Loans to Total SAO Loans issued to PACSs,

5. Percentage of SAO Loans to SF/MF to Total SAO Loans issued to PACSs,

6. Percentage of SAO Loans to SC/ST to Total SAO Loans issued to PACSs.

(b) **Analysis of Short-term Loans for Marketing of Crops:**

1. Percentage of STLs for marketing of crops to total STLs issued to PACSs,
(2) Involvement of DCCBs in providing STLs for marketing of crops to PACSs - Percentage of Borrowings from the Apex Bank for marketing of crops to Total STLs for marketing of crops issued to PACSs.

(c) Analysis of Medium-term Loans for Agriculture:

(1) Percentage of MTLs to SF/MF to Total MTLs for Agriculture issued to PACSs,

(2) Percentage of MTLs to SC/ST to Total MTLs for Agriculture issued to PACSs,

(3) Involvement of DCCBs in providing MTLs for Agriculture to PACSs - Percentage of Borrowings from the Apex Bank for MTLs for Agriculture to Total MTLs for Agriculture issued to PACSs.

(d) Analysis of Medium-term Loans for Conversion:

(1) Involvement of DCCBs in extending Medium-term Loans for Conversion - Percentage of Borrowings from the Apex Bank for MT (Conversion) to Total MT (Conversion) Loans.
(e) **Analysis of Cash Credit Operations:**

1. Percentage of cash credit outstandings to Total Outstandings against PACSs,

2. Involvement of DCCBs in providing cash credit facility to PACSs – Percentage of cash credit outstandings to the Apex Bank to cash credit outstandings from the PACSs.

(II) **Analysis of Recovery Position:**

1. Percentage of Recoveries to Total Dues from PACSs to DCCBs (SAO Loans),

2. Percentage of Recoveries to Total Dues from PACSs to DCCBs (STLs for marketing of crops),

3. Percentage of Recoveries to Total Dues from PACSs to DCCBs (MT Loans for Agriculture),

4. Percentage of Recoveries to Total Dues from PACSs to DCCBs (MT Loans for conversion).

(III) **Analysis of Overdues Position:**

1. Percentage of Total Overdues to Total Outstandings against PACSs,

2. Percentage of Overdues to Outstandings against PACSs (SAO Loans),
(3) Percentage of Overdues to Outstandings against PACSs (ST Loans for Marketing of crops),
(4) Percentage of Overdues to Outstandings against PACSs (MT Loans for Agriculture),
(5) Percentage of Overdues to Outstandings against PACSs (MT Loans for Conversion),
(6) Percentage of Overdues to Outstandings against PACSs (Cash Credit Operations).

II. RATIOS FOR APPRAISAL OF COST AND PROFITABILITY OF THE DCCBs:

(1) Cost of Management as a percentage to Gross Income,
(2) Salaries as a percentage to Cost of Management,
(3) Other expenses as a percentage to cost of Management,
(4) Cost of Management as a percentage to Working Capital,
(5) Net profit as a percentage to Working Capital,
(6) Rate of Return on Internal Equities.