CHAPTER VI

SUMMARY AND RECOMMENDATIONS
A well planned, organised, efficient and viable banking system is a necessary concomitant of economic and social infrastructure in an economy. Banking occupies a crucial place in undertaking the development effort and acts as a vehicle for socio-economic transformation as well as a catalyst to economic growth. Banks have an important role to play in increasing the nation's savings rate, channelising the available savings into high investment priorities and better utilisation of available resources. Banks play a vital role in giving a direction to economy's development by financing the requirements of trade and industry in the country. Banks foster the process of capital formation, promote entrepreneurial abilities and accelerate employment opportunities.

To have a control over the commanding heights of the economy with a view to mobilise adequate resources for development and to reduce the inequality between regions, Indian banks were nationalised in two stages-14 banks in 1969 and 6 banks in 1980.

In the post-nationalisation, Indian banking system has become quite complex and varied. Banks have evolved into a technology for delivering a wide range of financial services and are no longer a merely process of financial
intermediation. The activities of banks have encompassed advisory and counselling roles as well as a monitoring function with a distinct disciplining base. Demands of innovativeness and creativity have been placed on bankers to such an extent that commercial banks are considered as one of the basic infrastructural points in promoting development.

Today, the bank-management of India is facing a two-faceted challenge - to improve their profitability on the one hand and to serve the public in new ways and means with greater efficiency and effectiveness on the other. In the noble task of fulfilling the socio-economic responsibilities, commercial viability of the banking should not be ignored. Although, profits today are no longer the be-all and end-all of banking business; nevertheless any concern for healthy growth, long-term viability and lasting contribution of banks must accord due emphasis on profitability.

Review of literature and Need of the Study

After nationalisation, there has been great pressures on bank profitability due to emphasis on mass banking, priority sector lending etc. The position has been further compounded by loan melas and loan waivers, based primarily on political considerations. Under such circumstances, it becomes necessary to keep a continuous watch on the profitability of this vital sector of economy.
In the past, some studies relating to financial performance of banks have been conducted, but in most of the studies, 'profit' has been used as one of the many indicators of their performance appraisal. This dilutes the importance of profits to a large extent. Banks are essentially commercial organisations as despite the change in thrust, the profit factor cannot be ignored without endangering viability of banks and continuity of their operations. Therefore, it is high time to concentrate efforts on analysing the profits and profitability position of our nationalised banks, so that confidence of the public in the soundness of the banking system remains unimpaired and the social objectives of banks do not necessarily dilute.

Objectives of the Study

1. The primary purpose of the study is to investigate the economic performance of banks. An attempt will be made to compute the magnitude of profits and profitability of each nationalised bank.

2. The study aims at identifying and analysing the factors/variables that influence the profitability of banks.

3. The study is expected to suggest remedial measures to improve the profits and profitability of banks.

Scope of the Study

The study is based on macro approach to the problems of profits and profitability of the banking
industry in India and seeks to analyse the profitability performance of twenty nationalised banks.

The period of the study is ten years 1976-85.

Research Methodology

For measuring the profits and profitability of banks, the present study employs three methods viz. trend analysis, ratio analysis and concentration indices. And for analysing the various variables which significantly influence the bank profitability, a multivariate approach viz. correlation analysis, regression analysis, factor analysis and discriminant analysis has been adopted. The data of selected variables has been pooled together for each of the nationalised bank for two periods of time namely 1976-78 and 1983-85.

Trend Analysis

In order to evaluate the overall profits and profitability performance of commercial banks, trend analysis becomes imperative; as it indicates the magnitude and direction of their operations over a period of time and helps in identifying certain banks in respect of their level of efficiency in operations. Trends in six selected parameters have been analysed:

1. Net Profit
2. Profitability
3. Income
4. Expenditure
5. Spread
6. Burden

Ratio Analysis

Analysis of relevant ratios is one of the reliable and commonly used tool of analysis, due to their conciseness, comparability and the direct relevance of the relationships established to the various earning capabilities of banks. Three sets of ratios have been employed for assessing the profitability of banks viz. spread ratios, burden ratios and profitability ratios.

Spread Ratios
a) Interest Earned as percentage of Working Funds
b) Interest Paid as percentage of Working Funds
c) Spread as percentage of Working Funds

Burden Ratios
a) Non-Interest Expenditure as percentage of Working Funds
b) Non-Interest Income as percentage of Working Funds
c) Burden as percentage of Working Funds

Profitability Ratios
a) Net Profit as percentage of Total Income
b) Net Profit as percentage of Total Deposits
c) Net Profit as percentage of Working Funds

Concentration Indices

The overall operational performance of the total banking system depends upon the relative efficiency of each
unit of the banking system and the information about the latter has been taken by computing Herfindhal's Index of Concentration* of the following fifteen parameters

1. Net Profit (in absolute volume)
2. Total Income (in absolute volume)
3. Total Expenditure (in absolute volume)
4. Spread (in absolute volume)
5. Burden (in absolute volume)
6. Net Profit (per branch)
7. Total Income (per branch)
8. Total Expenditure (per branch)
9. Spread (per branch)
10. Burden (per branch)
11. Net Profit (per employee)
12. Total Income (per employee)
13. Total Expenditure (per employee)
14. Spread (per employee)
15. Burden (per employee)

Overall Profitability Performance

In order to judge the overall profitability performance of nationalised banks, following seven indices

*Herfindhal' Index of concentration is defined as:

\[ H_i = \frac{\sum_{i=1}^{n} \left( \frac{v_i}{\sum_v} \right)^2}{n} \]

Where

- \( H_i \) = Overall Index
- \( v_i \) = 'i' th unit's share of variable
- \( n \) = number of units
have been applied -

1. Index of Interest Earned to Working Funds
2. Index of Interest Paid to Working Funds
3. Index of Spread to Working Funds
4. Index of Non-Interest Expenditure to Working Funds
5. Index of Non-Interest Income to Working Funds
6. Index of Burden to Working Funds
7. Index of Net Profit to Working Funds

With regard to these profitability indices, banks have been classified at four performance levels viz. excellent, good, fair and poor. 'Excellent' performance level includes the banks lying at the top 25 per cent area of the normal distribution i.e. where growth index value is greater than $(\bar{X} + 0.6745\sigma)$. 'Good' performance category stands for banks, where growth index score lies between 50-75 per cent area of the normal distribution i.e. where growth index value is between $\bar{X}$ to $(\bar{X} + 0.6745\sigma)$. 'Fair' category include those banks, whose growth index lies between 25-50 percent area under normal curve i.e. where growth index value is between $(\bar{X} - 0.6745\sigma)$ to $\bar{X}$. 'Poor' category comprises the banks, which show their growth lying at the bottom 25 per cent area of the normal distribution i.e. where growth index value lies below $(\bar{X} - 0.6745\sigma)$.

*Value of $\pm 0.6745\sigma$ refers to the standard normal distribution, which divides the distribution at 25 per cent and 75 per cent respectively.
Correlation Analysis

The coefficient of linear correlation of the selected independent variables with the bank profitability has been worked out in order to identify the most significant variables. Also, the correlation coefficient among the different independent variables has been worked out.

Regression Analysis

In order to study the contribution of important variables, in order of their significance, toward bank profitability, regression analysis has been used. As the contribution of any single variable on bank profitability as worked out from univariate regression analysis was not expected to be very significant, as profitability is the result of several variables, step-wise multiple regression analysis has also been employed.

Factor Analysis

Factor analysis deals directly with the correlative dependence arranging variables into independent linear combinations and permits any indicator to be tested as a dependent variable of a small set of underlying or common components. In the studies of inter-dependence, all the variables have equal footing and factor analysis technique has been adopted to study the whole set of relationships among the variables that characterize the objects.
Discriminant Analysis

Discriminant analysis has been applied to study if the predicted classification of banks into two groups tally with the actual classification of banks into any pre assigned group; and to examine the relative contribution of the individual variables in the function which discriminates the two groups.

Determinants of Bank Profitability

The major factors that have contributed towards the decline in bank profitability are identified as below:

1. Priority sector lending - As far as the profitability of commercial banks is concerned, priority sector lending is a double edged weapon. On the one hand, they escalate the cost of operations and on the other they yield lesser income.

2. Credit policies - Mounting opportunity costs of excess CRR and SLR alongwith the loss of interest on CRR and penalties on CRR and SLR are responsible for the declining trends in bank profitability.

3. Massive geographical expansion - The rapid expansion of branch network, particularly in the rural and remote areas of the country, has resulted in the emergence of organisational, legal, procedural, behavioural, environmental and operational problems; which together add to the cost of operations of bank branches without contributing much to the revenue and thus leaving a negative
impact on bank profitability.

4. **Industrial sickness** - The increasing number of sick units and the alarming increase in the amount of bank funds locked up in these units have adversely affected the profitability of commercial banks.

5. **Growing competition** - With the emergence of a series of new savings instruments, the corporate sector has started raising a sizeable portion of its fund requirements directly from the capital market/household sector and thus exerting an influence on banks' profitability.

6. **Deposit composition** - The increasing proportion of fixed deposits and declining proportion of current deposits have increased the outgo by way of interest and thus leading to shrinkage of bank profits.

7. **Increasing establishment expenses** - Increase in establishment cost, without contributing much to the productivity, is another factor responsible for the erosion of bank profitability.

8. **Low income from ancillary business** - The declining share of ancillary income can be considered as one of the many factors responsible for the worsening of profitability position of our banks.

9. **Spread and Burden** - The comparative more increase in burden (both in the absolute as well as in the relative terms) and the lesser increase in spread (both in the absolute as well as in the relative terms) is responsible
for the declining trends in bank profitability over the study period.

10. **Miscellaneous factors** - Declining C-D ratio, political interference, improper management of cash, funds and investment portfolios, lack of appropriate systems & procedures and mounting overdues etc. have also made their contribution towards declining trends in bank profitability.

**Performance of Nationalised Banks**

**Trend Analysis**

Trend analysis has revealed that although net profit in absolute volume has increased for majority of nationalised banks (with the exception of four banks namely United Commercial Bank, United Bank of India, New Bank of India and Vijaya Bank), profitability has witnessed a decline. However, three banks namely Central Bank of India, Bank of Maharashtra and Andhra Bank improved their profitability over the study period. The major reason for declining trends in profitability is the higher growth rates in total expenditure as compared to total income and of higher growth rates in burden as compared to spread. Only two banks namely Central Bank of India and Bank of Maharashtra could have higher growth rates in total income as well as in spread in comparison to total expenditure and burden respectively; and this is reflected in their improved profitability.
Not much inter-bank differentials were found in the trends of different selected parameters i.e. the banks which witnessed higher and lower growth rates in total income also had the similar growth rates in total expenditure; and the same was true for spread and burden as well as for net profit and profitability.

**Ratio Analysis**

From ratio analysis, it emerges that profitability of Indian nationalised banks has declined over the study period, except in the case of three banks namely Central Bank of India, Bank of Maharashtra and Andhra Bank. For majority of nationalised banks, all the three spread ratios witnessed an increase, but in case of burden ratios, the ratio of non-interest income as percentage of working funds declined, the ratio of non-interest expenditure as percentage of working funds increased slightly with the result that the ratio of burden as percentage of working funds witnessed an increase, thus leaving adverse impact on bank profitability. Further, over the study period, the relative increase in the ratio of burden as percentage of working funds is more than the ratio of spread as percentage of working funds. This obviously has further compounded the problem of declining profitability.

Another significant point which emerges from the analysis is that for the majority of nationalised banks, all the three profitability ratios have witnessed an improvement
in 1985. The declining trends in profitability till 1984 and reversal of the trend in 1985 can mainly be traced to rationalisation of service charges with effect from Oct. 1985. Earlier, banks were having discretionary powers to charge for the various services and with the intention to oblige and attract the customers, banks were not charging fully; this had an adverse impact on ancillary income and thereby on bank profitability. After the introduction of universal system of service charges in Oct. 1985, banks no longer have the discretionary powers and have to charge according to the prescribed rates for the various services rendered by them. This change has probably contributed towards increase in profitability in 1985. Few policy changes announced by Reserve Bank of India/Government of India like hike in interest rates on food advances, higher interest rate on CRR, increasing running yield on investment in government securities, increase in capital base of nationalised banks and partial ban on staff recruitment are also expected to have contributed towards improvement in bank profitability in 1985 and afterwards.

Concentration Indices

The concentration indices of absolute volume have revealed more dissimilarities in the relative performance of nationalised banks with respect to sharing of net profit and spread as compared to other parameters namely total income, total expenditure and burden. With respect to all the five
selected parameters, the banks namely Bank of Baroda, Central Bank of India, Punjab National Bank and Bank of India have the maximum relative shares; and Indian Bank, Dena Bank, Bank of Maharashtra, Allahabad Bank and the six banks nationalised in 1980 have minimum relative shares.

The concentration indices of per branch parameters have revealed a general tendency towards almost similar degree of efficiency enjoyed by majority of nationalised banks. The performance of six banks (namely Bank of India, Central Bank of India, Bank of Baroda, Canara Bank, Syndicate Bank and Indian Overseas Bank) has been relatively better; the performance of four banks (namely Punjab National Bank, United Commercial Bank, Union Bank of India and United Bank of India) is good; and that of remaining ten banks, the performance is poor; with respect to their contribution to the overall indices of per branch parameters over the period under study.

The various per employee performance parameters have revealed that except for net profit per employee, rest for all the parameters (namely total income per employee, total expenditure per employee, spread per employee and burden per employee), the majority of nationalised banks have enjoyed almost similar degree of efficiency with very nominal variations here and there.

Overall Profitability Performance

Relatively speaking four banks (namely Canara
Bank, Indian Overseas Bank, Andhra Bank and Corporation Bank) achieved excellent performance; seven banks (namely Bank of India, Bank of Baroda, Punjab National Bank, Union Bank of India, Syndicate Bank, Indian Bank and Allahabad Bank) witnessed good performance; three banks (namely United Commercial Bank, Bank of Maharashtra and Oriental Bank of Commerce) fair performance; and six banks (namely Central Bank of India, United Bank of India, Dena Bank, Punjab & Sind Bank, New Bank of India and Vijaya Bank) held the poor performance level with respect to the index of net profit to working funds.

A significant point which emerges from the compiled results is that the banks which witnessed excellent performance level with respect to the index of burden to working funds, had poor performance level with respect to the index of spread to working funds and excellent performance level with respect to the index of net profit to working funds. Thus, it can be concluded that to have excellent profitability performance, banks need to have excellent performance in managing burden and it is the burden (against the traditionally believed element spread) which plays a major role in determining the profitability of banks. The most probable reason for this could be more manoeuvrability exercised by banks on the management of burden, while in case of spread there is little scope for manoeuvrability. No doubt, few determinants of burden, like
competition and wage agreements & policies are not within the control of banks, but banks can curtail their non-interest expenditure by scientific recruitment, promotion and placement policies, by improving the quality of expenditure decisions and by budgeting and cost control methods; and thereby can enhance their profitability. This also justifies the existence of inter-bank differentials i.e. despite the major constituent of total income (interest income) and total expenditure (interest expenditure) being determined by central banking authority, few banks are having high profitability, while others have low profitability performance.

Empirical Estimates of Bank Profitability

Correlation Analysis

As per the correlation matrices, fixed deposits as percentage of total deposits ($X_{11}$) and saving deposits as percentage of total deposits ($X_{10}$) are the two variables, which significantly explain the variations in bank profitability during both the periods of time. While $X_{11}$ is positively related to profitability, the effect of $X_{10}$ is negative. Ancillary income as percentage of total income ($X_6$) which was significantly and positively related to bank profitability in 1976-78 becomes insignificant in 1983-85. Similarly, the effect of burden as percentage of working funds ($X_8$) which was significant and negative in the first period becomes insignificant in the second period. However,
significance of spread as percentage of working funds ($X_7$) and establishment expenses as percentage of total expenditure ($X_5$) has increased i.e. these two variables have significant relationship with bank profitability during the second period (1983-85) only. As regards their direction, $X_7$ is positively and $X_5$ negatively related to bank profitability. Interestingly, the contribution of priority sector credit as percentage of total credit ($X_2$) has changed from negative to positive, though $X_2$ has emerged as an insignificant variable during both the periods of time.

**Regression Analysis**

The results of univariate regression analysis are exactly in conformity with the results of correlation analysis for both the periods of time.

As per the results of stepwise multiple regression analysis for the period 1976-78, fixed deposits as percentage of total deposits ($X_{11}$), ancillary income as percentage of total income ($X_6$) and establishment expenses as percentage of total expenditure ($X_5$) emerge as significant variables. But with the introduction of subsequent variables namely spread as percentage of working funds ($X_7$) and burden as percentage of working funds ($X_8$), the coefficient of determination ($R^2$) increases sharply to 99 percent and $X_7$ and $X_8$ get high significant values, while all other variables become insignificant. The introduction of remaining variables do not have any significant impact on
the results.

During the period 1976-78, two variables namely $X_7$ and $X_8$ were highly inter-correlated which resulted the problem of multicollinearity to enter the analysis. To solve multicollinearity problem, it was thought desirable to drop either of these two variables one by one. In the last equation of multiple regression, opportunity cost of excess CRR and SLR as percentage of total opportunity cost of CRR and SLR ($X_3$) emerges as significant variable with the exclusion of $X_7$; while with the exclusion of $X_8$, three variables namely ancillary income as percentage of total income ($X_6$), establishment expenses as percentage of total expenditure ($X_5$) and spread as percentage of working funds ($X_7$) emerge as significant variables.

Three variables namely establishment expenses as percentage of total expenditure ($X_5$), priority sector credit as percentage of total credit ($X_2$) and opportunity cost of excess CRR and SLR as percentage of total opportunity cost of CRR and SLR ($X_3$) emerge as significant variables during the period 1983-85. Exclusion of $X_7$ or $X_8$ has not made any significant impact on the results.

Factor Analysis

For the period 1976-78, six derived factors could collectively explain as much as 92.10 per cent of the variations in the variables associated with bank profitability. As per their factor loadings, four variables
namely burden as percentage of working funds ($X_8$), saving deposits as percentage of total deposits ($X_{10}$), ancillary income as percentage of total income ($X_6$) and spread as percentage of working funds ($X_7$) are associated with Factor I.

Five distinct factors emerge during the period 1983-85 and together could explain 80.28 per cent of the variations in the selected variables. Fixed deposits as percentage of total deposits ($X_{11}$), spread as percentage of working funds ($X_7$), saving deposits as percentage of total deposits ($X_{10}$), establishment expenses as percentage of total expenditure ($X_5$), total credit as percentage of total deposits ($X_{12}$) and ancillary income as percentage of total income ($X_6$) have the high factor loadings in Factor I.

**Discriminant Analysis**

To identify the variables which significantly discriminate between the two groups of banks (one having profitability above the mean and another having profitability lower than the mean value), discriminant functions have been derived for two periods of time and these functions significantly discriminate the banks on the basis of the selected variables taken simultaneously. However, there are 7.14 per cent and 6.60 per cent cases during 1976-78 and 1983-85 respectively, which were misclassified. Five variables namely burden as percentage of working funds ($X_8$), fixed deposits as percentage of total
deposits ($X_{11}$), rural branches as percentage of total branches ($X_4$), current deposits as percentage of total deposits ($X_9$) and saving deposits as percentage of total deposits ($X_{10}$) collectively contribute 76.53 per cent in the total distance during 1976-78; while during 1983-85, the collective contribution of fixed deposits as percentage of total deposits ($X_{11}$), saving deposits as percentage of total deposits ($X_{10}$), establishment expenses as percentage of total expenditure ($X_5$), spread as percentage of working funds ($X_7$) and current deposits as percentage of total deposits ($X_9$) is 95.99 per cent to the total distance, which discriminates the two groups.

Taking one variable at a time (T-Statistics), difference between the profitability values of the two groups is significant during both the periods of time. Other variables which differ significantly are opportunity cost of excess CRR and SLR as percentage of total opportunity cost of CRR and SLR ($X_3$), rural branches as percentage of total branches ($X_4$), establishment expenses as percentage of total expenditure ($X_5$), saving deposits as percentage of total deposits ($X_{10}$), and fixed deposits as percentage of total deposits ($X_{11}$) during the period 1976-78 and establishment expenses as percentage of total expenditure ($X_5$), spread as percentage of working funds ($X_7$) and burden as percentage of working funds ($X_8$) during the period 1983-85. Hence Only $X_5$ could differentiate significantly
between the two groups of banks during both the periods of time.

To conclude, four variables namely ancillary income as percentage of total income \((X_6)\), burden as percentage of working funds \((X_8)\), saving deposits as percentage of total deposits \((X_{10})\) and fixed deposits as percentage of total deposits \((X_{11})\) significantly explain the variations in bank profitability during the period 1976-78; while during 1983-85, variables namely establishment expenses as percentage of total expenditure \((X_5)\), spread as percentage of working funds \((X_7)\), saving deposits as percentage total deposits \((X_{10})\) and fixed deposits as percentage of total deposits \((X_{11})\) emerge as the significant one's. (However \(X_{10}\) does not emerge as significant variable as per the results of step-wise multiple regression analysis for both the periods of time). Hence the significance of \(X_6\) and \(X_8\) has diminished and that of \(X_5\) and \(X_7\) increased over the study period while two variables namely \(X_{10}\) and \(X_{11}\) remain significant during both time periods. As regards the direction of these variables, the contribution of \(X_6\) (ancillary income as percentage of total income), \(X_7\) (spread as percentage of working funds) and \(X_{11}\) (fixed deposits as percentage of total deposits) has been positive and that of \(X_5\) (establishment expenses as percentage of total expenditure), \(X_8\) (burden as percentage of working funds) and \(X_{10}\) (saving deposits as percentage of total deposits)
negative. Hence, fixed deposits contribute positively towards bank profitability and the contribution of saving deposits is negative. This contradicts the widely held belief that fixed deposits on which high rate of interest is paid, contracts the profitability of banks and saving deposits on which comparatively low rates of interest are paid contributes towards bank profitability. Another significant point which emerges from the analysis is that statutory pre-emptions by way of CRR and SLR and social obligations of banks by way of priority sector lending and rural banking do not explain the variations in bank profitability to any significant extent. This contradicts the traditional belief that in the post-nationalisation period, the profitability of Indian commercial banks has declined mainly due to priority sector lending and rural banking. Social obligations of banks are not a major drag on bank profitability. Rather the fault lies somewhere else - may be in the organisational structure, funds management or overall efficiency of banking operations.

To improve their profitability, banks need to focus attention on the management of spread, burden, establishment expenses, ancillary income and deposit composition and the study appends following suggestions on these issues:

1. The establishment expenditure, which constitutes
the second largest item of the total expenditure of banks, needs to be monitored regularly after dividing it in controllable and non-controllable aspects. Though the staff salary structure of banks is subject to bilateral agreements with the trade unions, but the utilisation of manpower resources to the optimum advantage is within the control of managements. If staff assessment is carried out on the basis of activity analysis and productivity criteria, it could be possible to attain higher business volume with minimum staff and thus establishment cost can be substantially reduced and bank profitability improved.

2. To bring about any tangible improvement in income generation, banks should look towards diversifying into a wide range of financial services. Since the ancillary income constitutes quite a low proportion of total income, it is all the more necessary that banks in India should focus greater attention on enlarging their ancillary business both in terms of variety and coverage. There are various ancillary services like merchant banking services, consultancy services, marketing of services, leasing, factoring, portfolio management and mutual funds etc., which open up the newer areas into which banks can successfully diversify.
In this light it can be said that entry into some of these areas through fully owned subsidiaries is a step in the right direction.

To ensure maximum profitability, banks need to adequately charge for these services with proper cost-benefit analysis periodically. While it is essential to provide banking services at minimum cost, there is prime facie no justification to enter into loss making areas.

3. Deposits, which constitute a major chunk of bank liabilities, needs to be explored to the maximum potential. Banks must put maximum efforts to attract fixed deposits which contribute significantly towards the enhancement of bank profitability. Admittedly, mobilising fixed deposits is becoming difficult due to competition from mutual funds; still, scope for enhancement of short term deposits exists by improved customer service, attractive rates of interest in commensurate with other non-banking financial institutions, better nomination facilities and by the introduction of sophisticated technology and communication systems.

4. Priority sector lending and rural banking do not adversely affect the bank profitability to a significant extent, and hence should not be blamed
for the declining trends in bank profitability. Advancing to priority sectors and opening of rural branches may be extended in the larger interests of the society.