CHAPTER -I
INTRODUCTION AND RESEARCH DESIGN

Indian banking and financial system in the new millennium are facing a series of new challenges which are multi-dimensional under the influence of globalization, coupled with the adoption of new technology and stiff competition arising out of the challenged situation. The financial and banking sector reforms introduced in early 1990s in Indian economy were primarily aimed at viable and efficient banking system in India. The recommendations made by Narasimhan Committee I (1991) and II (1998) introduced scientific methodology in improving the banking system through asset classification, asset liability management in income recognition, capital adequacy, disclosure norms, risk management, etc., in conformity with global standards.

Stiff global classification, rapid technological changes, volatile interest rate, entry of new private banks, economic and other conditions etc., have created significant pressure on stability and viability of Indian banks which were affecting the reduction in profitability, declining productivity, deterioration in quality assets, bad debts, overstaffing, obsolete technology etc. The time has come to focus on cost-effective and market oriented strategies for the public sector banks for survival and growth of new and environmental changes. In order to meet the global challenges of new environmental and exploit the emerging opportunities, the banks have to constantly reset its structure to make it compatible
and adaptable. Indian banks spread across the country with cultural diversity and demographic variations, need to have a fresh look at it at their organizational structure. Thus, it requires an in-depth and careful assessment of the entire situation and adoption of necessary steps at the appropriate times.

The banking business is more complex today. There is proliferation of banking companies and their products. The variety of barriers to the conduct of business has become thing of the past. Various protective measures for the public sector banks have been withdrawn. There is a level playing field today. The banking business today operates in "Global village" environment. The dismantling of barriers to entry and expansion have resulted in many Indian corporate giants transforming themselves into new banking corporates. Many operators with global presence have stepped into the banking arena. Multitude of operators in the banking arena has made the environment volatile and the future has become less predictable. The newer operators have brought in a variety of new ways to improve their margins/ profits. Interest rate swap, discounting of instruments, risk discounting, portfolio investments have become newer ways to maximize profits. Financial intermediation has now become a less significant issue for improving the bottom line. "Accepting deposits for the purpose of lending" the usual description of banking has given way to the newer definition "Trading on information relating to money market instruments".

In view of the intensive competition and declining trend in the market share and operating efficiency of the public sector banks in the Indian financial system, it becomes imperative to have a review
of the contribution of the commercial banks in terms of financial productivity as they are dealing with the social money. An evaluation of operating and financial health of the public sector banks from time to time goes a long way in improving socio economic relevance of the public sector banks in Indian economy particularly in open regime.

**Need for the Study:**

Banking industry in India is facing three major problems like inadequate capital, abnormal growth of non-performing assets and emergence of information technology. In 1988, the Basel committee on banking supervision [BCVS] introduced capital adequacy norms through Basel-I accord, according to which the central banks throughout the globe have to maintain capital adequacy ratio. The Reserve Bank of India (RBI) has stipulated a capital adequacy ratio of 9%. As a result of this, the banks have started increasing their capital base. In addition to this, the banks have been facing several problems at the operational level due to emergence of several kinds of risks emanated from volatile interest rate, exchange rate, market and other operational risk. It becomes very difficult for the banks to raise the capital from the primary market, if their operating performances is found to be ill healthy. Moreover, foreign banks and private sector banks have also entered into the market to raise additional capital. If the banks do not comply with the conditions relating to capital adequacy norms laid down by the RBI, they don't have any option other than closure. But the public sector banks owned by the Govt. of India may be provided with the additional
funds by the Govt. But such a course of action by the Govt. may lead to increased deficit financing.

Since 1993 with the introduction of prudential norms by the RBI, the non-performing assets have been witnessing a rising trend. During the first half of 2007, the gross NPA's rose by 2.29% and the net NPA's by over 10%. This has been mainly due to low interest rate for home loan segment and other sensitive sectors. To meet this demand, banks borrowed through high cost deposits to keep up the retail push as a result of this the ratio of current accounts and savings account over total deposits.[CASA] showed a declining trend, thereby resulting in higher cost of borrowing. As a result, cost on borrowing rose to 36.4% as compared to the 28.3% rise in interest income during the financial year 2006-07.

The non-performing assets need to be classified into standard, sub-standard, doubtful and bad so as to make provision for loan losses as per the prudential norms. Increasing growth of NPA's has eroded the capital structure of the commercial banks. No doubt, the major cause may be due to focus of the commercial banks on social banking rather than commercial banking while sanctioning loans and advances. But the changing circumstances and the liberalized regime cannot afford any more cheap credit or subsidized credit in the years to come. Further technological upgradation has become sine qua non for improvement in operational/managerial efficiency in strategic areas like customer service, internal control, housekeeping and augmenting productivity and profitability. But it is needless to emphasize that

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1 B. G. Shirsat, Business Standard, December 2007, Page No. 10
the commercial banks will have to use the technology to remove the drudgery of bank transactions at competitive cost.

The emergence of New Private Sector Banks in 1995 exposed the inefficiencies of the public sector banks. New Private Sector Banks have set a blistering pace of growth, easily beating the growth rate of Public Sector Banks. The business share for private sector Banks is very small but their share in the total net profit of the banking system is disproportionately high. Just like in any other business, profit in banking acts as a stimulant factor for management to expand and improve their services. Though Profit maximization is secondary for Public Sector Banks, adequate profit is necessary for their survival and healthy operations because even socio-economic obligations, like branch expansion in rural areas and priority sector advances cannot be fulfilled without adequate profit.

With global competition becoming keener than ever before, only those banks which can make substantial net profit, will have a future and can withstand competition from banking and non-banking financial institutions. Such a high level of financial productivity would enable the banks to set aside substantial funds for providing innovative services demanded by the clientele through aggressive computerization and up-gradation of technology, which call for vast sums of investments. Therefore the banks’ performance now-a-days needs to be evaluated not in terms of the level of deposits mobilized or credit expanded but in terms of a new parameters focusing on composition of quality of assets, namely

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2 Mittal, Dhade, Profitability and Productivity in Indian Banks: A Comparative Study, AIMS, Volume 1, No. 2, May 2007, pp 137-152
ratio of net profit to working funds, return on assets, return on equity, etc. Hence, there is a need for applying environment-driven performance evaluation criteria for measuring financial productivity rather than tradition bound parameters like deposit per employee, credit per employee, etc. Only the banks, which acquire additional financial power or strength through their multifarious operations will have sustaining power in future. Viewed from this angle, financial productivity only is the need for survival for the commercial banks in the midst of turbulent global economy, which is full of threats, challenges and opportunities. Hence, a need was felt by the researcher to evaluate operating performance of commercial banks in India with focus on financial productivity. The present study is a modest attempt in that direction.

**Review of Earlier Literature**

A review of the research work done in the area of banks' financial productivity in the past is quite essential so as to avoid the possible duplication of the research work or to differentiate the present work from the earlier works in terms of theme, focus of study, unit of study, etc. In fact, there is dearth of literature relating to the research work on analysis of financial productivity in commercial banks. A review of some pertinent studies is made here:

1. The research work of Karkal, G.I. (1982) "Profit and Profitability in Banking" examined the factors that affected the magnitude of profit and suggested to increase the spread employees' productivity, etc., for improving banks profitability.
2. Verghese, S.K. (1983) in his work "profit and profitability of commercial banks" has attempted to evaluate profitability of Indian Banks during the seventies. This study focused on absolute figures drawn from income statements rather than relative figures while analyzing profit and profitability.

3. The research work of Joshi, P.N. (1986) on "Profitability and profit planning in Banks" deals with an exploration of variables responsible for the declining trend in banks' profitability. The study was based on secondary data. He suggested profit planning both at micro and macro levels for arresting the declining trend in banks' profitability.

4. Vyas, M.R. (1991) in his work on "Financial performance of Rural Banks" analyzed the contribution of RRBs in implementing the schemes introduced by the Government of Rajasthan with the help of certain selected financial ratios.

5. Hundekar, S.G. in his work on "Analysis of Productivity in Banks with special reference to Bijapur Grameena Bank in Karnataka" attempted to evaluate the operating performance of a rural bank with physical measures of productivity and some selected financial ratios. It was confined to a single RRB in Karnataka. The main focus was on operational efficiency and profitability.

6. Dimitri Vittas (1991) in his work "Measuring Commercial Bank Efficiency- Use and Misuse of Bank Operating Ratios" examined the experience of commercial banks in some selected countries like U.K. German, Canada and Netherlands. The study focused on determinants of operating ratios.
7. Abhiman Das (2002) in his work "Risk and Productivity change in Public Sector Banks" examined the relationship portfolio risk and capital and its relationship with operating efficiency by using the data on public sector banks in India for the period from 1995-96 to 2000-01. However, it focused at macro level of Indian banking system.

8. Rakesh Mohan (2005) in his work on "Reforms, Productivity and Efficiency in Banking- The Indian Experience" made a sincere attempt in defining the concept of financial productivity at the banking parlance. However, the study focused upon banking system.

9. Manish Mittal and Arun Dhade (2007) in their work on "Profitability and Productivity in Indian Banks: A Comparative Study" analyzed the differences in the spread ratio of various categories of banks like public sector banks', private sector banks' and foreign banks'. It was a macro study.

Thus, the review of literature reveals that most of studies concentrated an analysis of operating efficiency and profitability at the macro level. None of these studies focused upon the examining the extent of financial productivity achieved by commercial banks on individual basis so as to throw light on productive use of money generated by the banks from the society at cost. Viewed from this angle, the present study on analysis of financial productivity at an individual bank level i.e. Syndicate Bank assumes special significance and is quite unique in terms of its nature, focus and analysis, period selected, unit chosen and the research methodology followed.
Statement of the Research Problem

A bank, per se, whether private or owned by the Government, is not a charitable trust but is a financial institution with commercial characteristics performing financial doctoring for the needy people. Modern commercial banks are expected to operate in market-oriented economies. With the introduction of economic reforms in 1991, geographical boundaries are removed and the whole globe has become a village with complex competition not only while mobilizing funds at optimum cost but also while searching a creditworthy borrower so as to minimize the credit risk. The banks have to struggle hard for improving or even for maintaining the market share in the total volume of banking business transacted by the whole banking system in the country which has been declining with an adverse impact on spreads. Besides witnessing a declining trend in the spreads, banks have also been experiencing rising trend in the operating expenses.

Banks function not because of equity contribution, but on the strength of deposits mobilized from the public at large. Hence they are answerable to the public. Because interest obligation on the deposits mobilized cannot be avoided by the banks by introducing any measure. At the same time, credit business has also become quite challenging in the midst of downward trend in the value system of the bank borrower. The credit policy pursued by the bank has to be based on the cannons of sound lending policy, viz., safety, liquidity, profitability, etc. A poor planned credit policy gives

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3 C.T. George: Repeal the law of Limitation, Professional Banker, Vol-viii Issue-5 May 2008 The Icfai University press Hyderabad
4 C.T. George: Repeal the law of Limitation, Professional Banker, Vol-viii Issue-5 May 2008 The Icfai University press Hyderabad
birth to loss of loan assets or emergence of non-performing assets. These non-performing assets may be in the form of sub-standard loans [i.e. loan assets where principal and/or interest 90 days past due]; or doubtful debts [i.e. loan assets where principal and/or interest are at least 180 days past due]; and loss assets [i.e. loan assets where principal and/or interest are one year past due]. Any commercial bank in India whose credit portfolio is characterized by the presence of all the aforesaid three non-performing assets has to make a provision for loan loss at 20%, 50% and 100% respectively. Such a phenomena would adversely affect liquidity, profitability and financial soundness of the bank. Thus, an optimum deposit-mix policy coupled with optimum credit-mix policy will enable the bank to earn a fair return on the money invested in the banks by the shareholders like Government of India. Bank's equity capital is a social money which borrows for judicious investment so that every addition to the money invested would be available for socio economic growth in other sectors of the economy. The economic growth cannot be said to be promoted just by providing credit to target groups without caring for its return to the bank at the right time with socially justifiable addition. In other words, every rupee that is invested by the bank must come to the same bank with desired value addition. Therefore, a bank manager's role is to make and implement decisions that increase the value of shareholders' wealth. Viewed from this angle, a measurement of the financial productivity of the bank, which signifies the relationship between the output of the bank [i.e.

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5 Timothy W. Koch & S. Scott Macdonald, Bank Management, Thomson, Singapore, Page 127
inflows to the bank from the borrowers] and the input of the bank [i.e. money invested by the bank ] assumes a special significance in the market driven economy as the commercial banks are basically engaged in financial activities with commercial motives. Issues of productivity and efficiency have been at the centre stage of discussions in recent years. Nowhere is this truer than the financial sector, which is perceived to be the ‘brain’ of the economy [ Stieglitz (1998) ]. Even within the financial sector, given the dominance of bank-based financial systems in most emerging markets including ours and the systemic importance of banks in the financial system, the banking sector continues to be the centre of attention for academia and policy-makers alike. Not surprisingly therefore, performance of the banking sector has repercussions across the length and breadth of the economy. Hence, the title of the present study: “An Analysis of Financial Productivity in Commercial Banks in India, A case study of Syndicate Bank”

**Research Objectives**

The main objectives of the study are as follows:

1) To compare the financial productivity of the syndicate bank with that of public sector banks in India.

2) To examine the trend in the financial productivity of the bank under study

3) To examine the factors affecting the financial productivity of the sample bank.

4) To evaluate the financial performance of the sample bank

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5) To identify the factors affecting the financial performance of the sample bank.
6) To evaluate the operating performance of the sample bank.
7) To identify the factors affecting the operating performance.
8) To evaluate the segment wise operating performance of the sample bank.
9) To offer useful suggestions for improving the financial productivity of the bank under study, in particular; and that of the public sector banks in India, in general.

**Hypotheses tested:**

In order to achieve the objectives of the study, the following hypotheses have been formulated and tested:

1) **Testing of financial productivity**

   \[ H_0 : \text{There is no significant difference between the financial productivity of the sample bank and that of the public sector bank in India during the study period.} \]

   \[ H_1 : \text{There is significant difference between the financial productivity of the sample bank and that of the public sector bank in India during the study period.} \]

2) **Testing of financial performance:**

   a) **Cost of Funds**

   \[ H_0 : \text{There is no significant difference between the cost of funds of the sample bank and the cost of funds of public sector banks in India.} \]

   \[ H_1 : \text{There is significant difference between the cost of funds of the sample bank and the cost of funds of public sector banks in India.} \]
b) Cost of Deposits

\( H_0 \): There is no significant difference between the cost of deposits of the sample bank and the cost of deposits of the public sector banks in India.

\( H_1 \): There is significant difference between the cost of deposits of the sample bank and the cost of deposits of public sector banks in India.

c) Cost of Borrowings

\( H_0 \): There is no significant difference between the cost of borrowings of the sample bank and the cost of borrowings of public sector banks in India.

\( H_1 \): There is significant difference between the cost of borrowings of the sample bank and the cost of borrowings of public sector banks in India.

d) Return on Funds

\( H_0 \): There is no significant difference between the return on funds of the sample bank and the return on funds of public sector banks in India.

\( H_1 \): There is significant difference between the return on funds of the sample bank and the return on funds of public sector banks in India.

e) Return on Advances

\( H_0 \): There is no significant difference between the return on advances of the sample bank and the return on advances of public sector banks in India.

\( H_1 \): There is significant difference between the return on advances of the sample bank and the return on advances of public sector banks in India.
f) **Return on Investments**

**H₀:** There is no significant difference between the return on investments of the sample bank and the return on investments of public sector banks in India.

**H₁:** There is significant difference between the return on investments of the sample bank and the return on investments of public sector banks in India.

**III Testing of Operating performance**

**H₀:** There is no significant difference between the operating efficiency of the sample bank and the operating efficiency of public sector banks in India.

**H₁:** There is significant difference between the operating efficiency of the sample bank and the operating efficiency of public sector banks in India.

**Research Methodology:**

The present study is fundamentally based on secondary data, and to some extent on primary data collected by the researcher through the visits given to the corporate office at Bangalore and the Head office at Manipal and the personal discussions with the bank officials. The data required for the study were mainly collected from the following sources.

a) Annual reports of the bank for the related years

b) Reports on trend and progress of Banking in India

c) Reports on Currency and Finance for the related years

Besides the above sources, the required data were also collected from different web sites of Reserve bank of India, Business standard, etc.
The data so collected were properly classified, tabulated and analyzed with the help of suitable statistical and financial tools. The detailed methodology used for testing the hypothesis and for achieving the objectives of the study has been enumerated at the appropriate places in the respective chapters.

Scope of the study:

The present study is confined to an analysis of the financial productivity in public sector banks in India with special reference to syndicate bank for the period from 2002-03 to 2007-08. The study focuses upon an evaluation of all the functional areas of the bank under review and also aims at identifying the factors causing the change in the financial performance of the bank.

Research Design:

The whole research work has been outlined within the framework of eight chapters.

Chapter I:- Introduction and Research Design

This chapter, being an introductory one, gives a synoptic view of structure of the research work. It deals with rationale of and need for the study, review of literature, statement of the research problem, research objectives, scope of the study, research methodology, research design, limitations of the study and operational definitions of the concepts used in the study.
Chapter II: Evolution and Growth of Commercial Banks in India

This is a background chapter and is packed with the details relating to evolution and growth of commercial banks in India in general and of the syndicate bank under study in particular.

Chapter III: Analysis of Financial Productivity in Commercial Banks- A Theoretical Framework

This chapter deals with the approaches that are developed for the purpose of measuring and evaluating financial productivity in commercial banks.

Chapter IV: Analysis of ROI

Size and nature of trend in return on investment, return on total assets, and return on equity are examined in this chapter with the objective of identifying the fundamental factors that cause the financial productivity in banks to witness a particular trend over the period under study.

Chapter V: Analysis of Asset Mix

This chapter deals with an analysis of the asset portfolio of the bank under study and its impact on the average return on total funds deployed by the bank in different assets.

Chapter VI: Analysis of Liability Mix

This chapter deals with an analysis of source mix (i.e. liability mix) and its impact on average cost of funds raised by the bank from different sources.
Chapter VII: Analysis of Operating Cost and its Efficiency

This chapter deals with an evaluation of operating performance of the bank by establishing linkage between spread and burden and spread and net profit.

Chapter VIII: Findings and Suggestions

This, being the last chapter, is packed with the summary of the major findings emerged from data analysis and the useful suggestions made for improving financial productivity of the sample bank under study, in particular; and of the similar commercial banks operating elsewhere in the country, in general.

Limitations of the Study:

The present study is confined to the evaluation of only one commercial bank operating in the public sector. Analysis is based on the validity of the data collected from different secondary sources. It covers only over half-a-decade period i.e. from 2002-03 to 2007-08.

Operational Definitions of the Concepts used in the Study

1. **Burden:** It is the excess of non-interest expenses over non-interest income earned by the bank.

2. **Spread:** It is the excess of interest income over interest expenses.

3. **Total Revenue (income):** It is the aggregate of interest income and non-interest income.
4. **Total Expenses**: It is the sum of interest expensed and operating expenses.

5. **Return on Equity (ROE)**: It is defined as the ratio of net income to average total equity divided by 100.

6. **Equity Multiplier**: It is defined as the quotient arrived by dividing average total assets by average total equity.

7. **Return on Assets (ROA)**: It is defined as the ratio of net income to Average total assets divided by 100.

8. **Average Total Assets (ATA)**: It is the average of the total assets at the beginning of the financial year and the total assets at the end of the year.

9. **Average Total Equity (ATE)**: It is the average of the total equity at the beginning of the financial year and the total equity at the end of the financial year.

10. **Assets Utilization Ratio**: It is the ratio of total revenue to average total assets.

11. **Economic Value Added (EVA)**: It is the excess of net operating profit after tax minus capital charge.

12. **Gross NPAs**: These are the advances made by the bank on which interest has remained "past due" for more than one quarter or 90 days.

13. **Net NPAs**: These represent the excess of gross non-performing assets over provisions made depending upon the level of NPAs.

14. **Networth**: It refers to the sum of share capital and reserved and surplus.
15. **Interest-earning Assets:** These are defined as the aggregate of advances and investments.

16. **Interest-bearing Liabilities:** There are defined as the aggregate of deposits and borrowing.

17. **Maturity GAP:** The differences between the volume of rate sensitive assets (RSAs) and the volume of rate sensitive liabilities (RSLs).

18. **Positive GAP:** It is defined as the excess of rate sensitive assets over the rate sensitive liabilities.

19. **Negative GAP:** It is defined as the excess of the rate sensitive liabilities over the rate sensitive assets.

20. **Operating Cost:** It is the sum of different operating expenses.

21. **Financial Productivity:** It is defined as the ratio of total revenues to total expenses.

22. **Average Return:** It is the ratio of total revenue to total earning assets divided by 100.

23. **Average Cost:** It is the ratio of interest expenses to total interest bearing liabilities divided by 100.

24. **Operating Efficiency Ratio:** It is the ratio of operating expenses to the sum of net interest income (NII) and net non-interest income (NNII).

25. **Operating Expenses:** These are defined as the aggregate of manpower cost and other expenses. This sum is also called as non-interest expenses.

26. **Banking Business:** It is defined as the sum of volume of deposits mobilized and the volume of credit
expanded by the bank as at the end of any financial year.

27. Deposit Business: It is the aggregate of term-deposits, current deposits and savings deposits as at the end of any financial year.

28. Credit Business: It is the volume of loans and advances appearing in the bank's balance sheet of any financial year.