

## Profitability of Scheduled Commercial Banks in India - A Case Analysis

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### Abstract:

*The banking system, which constitutes the core of the financial sector, plays a crucial role in transmitting monetary policy impulses to the entire economic system. Its efficiency and development, therefore, are vital for enhancing the growth and improving the chances for price stability. In view of the importance of improving the profitability performance of the banking sector in recent years, a census study has been adopted by covering all Indian scheduled commercial banks in India which have been divided into three groups, namely, SBI group, Nationalised Banks group and Private Banks group with two sessions viz., Period I and Period II by dividing the 10 years study period into first five years and last five years. The scope of the study is wider in nature. The study identified certain factors, which are prominent to hike the profitability of the banks. The step-wise multiple regression has been adopted by the researcher. An analysis of the SBI group reveals that in both the period of study, the variable provisions and contingencies to total expenses showed a prominent place. The nationalized banks group showed a position of provisions and contingencies to total expenses in the first half of the study period and Capital Adequacy Ratio during the second half of the study period. In relation to the Private Banks group, it has changed from Other interest expenses ratio to Capital Adequacy ratio. The study makes emphasis with regard to initiating monitoring and controlling mechanism on certain important ratios which are inevitable one to enhance the profitability of scheduled commercial banks.*

**Keywords:** Profitability, Banking Sector, Commercial Banks

### Introduction

In recent years, the Profitability performance of scheduled commercial banks in India has become a novel topic for discussion. There is ample evidence to show the declining profitability of the banking industry:

In India, 73 per cent of the bank branches are located in rural and semi-urban areas. A significant proportion of fund is contributed through deposits, which account for more than 80 per cent of the liabilities of scheduled commercial banks. Loans and advances form around 50 per cent of aggregate deposits. More than 75 per cent of the investments of scheduled commercial banks are channelled into safe and risk-free assets consisting of both Government and other approved securities.

The introduction of virtual banking has fetched massive developments in the banking industry. Such virtual banking services are Automated Teller Machines (ATMs), Shared ATM Networks, Electronic Fund Transfer at Point of sale (EFTPos), Smart Cards, Stored-value Cards, Phone-banking, Internet and Intranet banking.

### Statement of The Problem

With the change in the social and economic objectives of Commercial Banks, particularly of the scheduled commercial banks in India, it becomes extremely essential to assess their profitability performance. However, in most of the studies covering the recent period, 'profit' has been used as one of the many indicators of their performance appraisal. This

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dilutes the importance of profits to a large extent. Despite the change in thrust, banks remain commercial organizations and profit factor cannot be ignored without endangering viability of banks and continuity of their operations. In fact, the approach of policy-makers towards profitability too has changed, with the result that low profits have become a fact of life. Therefore, it is high time to concentrate efforts on analyzing the profits and profitability position of scheduled commercial banks, so that the confidence of the public in the soundness of the banking system remains unimpaired and the social objectives of banks do not necessarily dilute.

In view of the importance of improving the profitability performance of the banking sector in recent years, all Indian scheduled commercial banks in India have been divided into three groups, namely, SBI group, Nationalised Banks group and Private Banks group and to identify the various factors which significantly influence the profitability of the banks.

#### **Scope Of The Study**

The scope of the study is wider in nature. It covers all the Indian scheduled commercial banks in India, which were under the control of the Reserve Bank of India.

#### **Period Of Study**

The study covered a period of 10 financial years from 1996-97 to 2005-2006. The financial year starts from 1<sup>st</sup> day of April of a year and ends on 31<sup>st</sup> day of March of next year.

#### **Objective Of The Study**

The main objective of the study is to identify the crucial factors responsible for the profitability of Indian scheduled commercial banks in India.

#### **Sampling Design**

Keeping in view the problem and the scope of the study, the researcher has decided to include all Indian scheduled commercial banks (both public and private sector banks) functioning in India for the financial period from 1996-97 to 2005-2006. The banks were

grouped into three categories: i.e., SBI Group (8 Banks); Nationalised Banks Group (19 Banks) and Private Banks Group (29 Banks).

#### **Methodology**

The study is based on census method with analytical and descriptive in nature. It attempts to analyse the various variables, which are expected to have influence over the profitability of banks. For this purpose, Step-wise Multiple Regression Analysis has been adopted by dividing the bank groups into two periods namely the first period consists of 5 years from 1996-97 to 2000-2001 and the second period consists of 2001-02 to 2005-06.

The following factors / variables have been adopted in the multivariate technique:

- Y - Ratio of Net Profit to Working Fund,
- X<sub>1</sub> - Ratio of Priority Sector Credit to Total bank Credit,
- X<sub>2</sub> - Ratio of Non-performing Assets to Advances,
- X<sub>3</sub> - Ratio of Rural Branches to Total Branches,
- X<sub>4</sub> - Ratio of Cost of Deposits to Total Expenditures,
- X<sub>5</sub> - Ratio of Cost of Borrowings to Total Expenditures,
- X<sub>6</sub> - Ratio of Other Interest Expenses to Total Expenses,
- X<sub>7</sub> - Ratio of Establishment Expenses to Total Expenditures,
- X<sub>8</sub> - Ratio of Other Operating Expenses to Total Expenses,
- X<sub>9</sub> - Ratio of Provisions and Contingencies to Total Expenditures,
- X<sub>10</sub> - Ratio of Interest Earned on Advances to Total Income,
- X<sub>11</sub> - Ratio of Income from Investments to Total Income,
- X<sub>12</sub> - Ratio of Interest Income of RBI and Inter Bank Funds to Total Income,
- X<sub>13</sub> - Ratio of Other Interest Income to Total Income,

- $X_{14}$  - Ratio of Other Income to Total Income,
- $X_{15}$  - Ratio of Savings Deposits to Total Deposits,
- $X_{16}$  - Ratio of Demand Deposits to Total Deposits,
- $X_{17}$  - Ratio of Time Deposits to Total Deposits,
- $X_{18}$  - Credit Deposit Ratio,
- $X_{19}$  - Ratio of Cash to Total Deposits,
- $X_{20}$  - Ratio of Fixed Assets to Working Funds and
- $X_{21}$  - Capital Adequacy Ratio.

Out of the above-denoted factors, the variable Y is dependent variable and the variables  $X_1$  to  $X_{21}$  are independent variables.

**Step-Wise Multiple Regression Analysis**

The step-wise regression technique is used to have a better idea of the independent contribution of each explanatory variable. Under this technique, the researcher has added the independent contribution of each explanatory variable into the prediction equation one by one, computing betas and  $R^2$  at each step. Hence, step-wise regression analysis consists of procedures through which a forward inclusion is combined with the deletion of variables that no longer meet the pre-established criteria at each successive step. Normally, the Step-Wise Multiple regression (SWMR) analysis is considered better than other procedures due to its inherent advantages.

**Table - 1 : Swmr Analysis – Sbi Group - Period – I**

(In per cent)

Variables	$R^2$	Increase in $R^2$
$X_9$ - Provisions & Contingencies to Total Expenditures	21.06	-
$X_2$ - Non Performing Assets to Advances	41.25	20.19
$X_5$ - Cost of Borrowings to Total Expenditures	50.22	8.97

It is seen from the Table-1 that the variable  $X_9$  appeared as the first variable and thereafter-subsequent variables were added one by one to show the maximum fit.  $X_9$  (provisions and contingencies as percentage of total expenditures) explains 21.06 per cent of variations in bank profitability. With the introduction of the next variable, i.e.,  $X_2$  (non-performing assets as percentage of advances)

it is revealed that both the variables taken together explains 41.25 percent of the variations and the variable  $X_2$  alone have an impact of 20.19 per cent. With the addition of  $X_5$  (cost of borrowings to total expenditures), the co-efficient of determination ( $R^2$ ) has increased to 50.22 per cent and this variable ( $X_5$ ) alone contributes to the extent of 8.97 per cent.

**Table - 2: Swmr Analysis – Sbi Group - Period – Ii**

(In per cent)

Variables	$R^2$	Increase in $R^2$
$X_9$ - Provisions & Contingencies to Total Expenditures	78.97	-
$X_{16}$ - Demand Deposits to Total Deposits	84.31	5.34
$X_3$ - Rural Branches to Total Branches	87.68	3.37

Table 2 explains that the variable  $X_9$  appeared as the first variable and thereafter-subsequent variables were added one by one to show the maximum fit. The variable  $X_9$  (provisions and contingencies as percentage of total expenditures) explains 78.97 per cent of variations in bank profitability. With the introduction of the next variable, i.e.,  $X_{16}$  (demand deposits as percentage of total

deposits) it is revealed that both the variables taken together explain 84.31 percent of the variations and the variable  $X_2$  alone have an impact of 5.34 per cent. With the addition of  $X_3$  (rural branches as percentage of total branches), the co-efficient of determination ( $R^2$ ) has increased to 87.68 per cent and this variable ( $X_3$ ) alone contributes to the extent of 3.37 per cent.

**Table - 3: Swmr Analysis – Nb Group - Period – I**

(In per cent)

Variables	$R^2$	Increase in $R^2$
$X_9$ - Provisions & Contingencies to Total Expenditures	61.92	-
$X_3$ - Rural Branches to Total Branches	68.4	6.48
$X_{16}$ - Demand Deposits to Total Deposits	75.09	6.69
$X_{17}$ - Time Deposits to Total Deposits	78.49	3.4

Table – 3 shows that the variable  $X_9$  appeared as the first variable and thereafter-subsequent variables were added one by one to show the maximum fit. The variable  $X_9$  (provisions and contingencies as percentage of total expenditures) explains 61.92 per cent of variations in bank profitability. With the introduction of the next variable, i.e.,  $X_3$  (rural branches as percentage of total branches) it is revealed that both the variables taken together explain 68.40 per cent of the

variations and the variable  $X_2$  alone have an impact of 6.48 per cent. With the addition of  $X_{16}$  (demand deposits as percentage of total deposits), the co-efficient of determination ( $R^2$ ) has increased to 75.09 per cent and this variable ( $X_{16}$ ) alone contributes to the extent of 6.69 percent. With the introduction of the subsequent variables, the value of  $R^2$  (co-efficient of determination) has increased to 78.49 per cent.

**Table - 4: Swmr Analysis – Nb Group - Period – II**

(In per cent)

Variables	$R^2$	Increase in $R^2$
$X_{21}$ - Capital Adequacy Ratio	70.42	-
$X_9$ - Provisions & Contingencies to Total Expenditures	74.81	4.39
$X_2$ - Non Performing Assets to Advances	79.94	5.13
$X_1$ - Establishment Expenses to Total Expenditures	82.08	2.14
$X_{17}$ - Time Deposits to Total Deposits	86.37	4.29
$X_{14}$ - Other Income to Total Income	87.77	1.4
$X_5$ - Cost of Borrowings to Total Expenditures	88.49	0.72
$X_3$ - Rural Branches to Total Branches	89.51	1.02

A critical analysis of the Table 4 reveals that variable  $X_{21}$  appeared as the first variable and thereafter-subsequent variables were added one by one to show the maximum fit. The variable  $X_{21}$  (capital adequacy ratio) explains 70.42 per cent of variations in bank profitability. With the introduction of the next variable, i.e.,  $X_9$  (provisions and contingencies as percentage of total expenditures) it is revealed that both the variables taken together explain 74.81 per cent of the variations and the variable  $X_9$  alone has an impact of 4.39 per cent. With the addition of  $X_2$  (non-performing assets to advances), the

co-efficient of determination ( $R^2$ ) has increased to 79.94 per cent and this variable ( $X_2$ ) alone contributes to the extent of 5.13 per cent. Similarly, by inclusion of further variables in the order given, which have an impact of the variable in profitability are as follows:  $X_7$  (Establishment Expenses to total expenditures) 2.14 per cent;  $X_{17}$  (time deposits to total deposits) 4.29 per cent;  $X_{14}$  (other income to total income) 1.40 per cent;  $X_5$  (cost of borrowings to total expenditures) 0.72 per cent; and  $X_3$  (rural branches to total branches) 1.02 per cent.

**Table - 5: Swmr Analysis – Pb Group - Period – I**

(In per cent)

Variables	$R^2$	Increase in $R^2$
$X_6$ - Other Interest Expenses to Total Expenses	17.81	–
$X_2$ - Non Performing Assets to Advances	24.97	7.16
$X_{18}$ - Total Credit to Total Deposits	37.65	12.68
$X_{15}$ - Savings Deposits to total Deposits	49.07	11.42
$X_{11}$ - Income from Investments to Total Income	54.5	5.43
$X_{20}$ - Fixed Assets to Working Funds	57.17	2.67
$X_{19}$ - Cash to Total Deposits	59.74	2.57
$X_9$ - Provisions & Contingencies to Total Expenditures	61.63	1.89
$X_{16}$ - Demand Deposits to Total Deposits	64.42	2.79

An observation of the Table – 5 reveals that the variable  $X_6$  appeared as the first variable and thereafter-subsequent variables were added one by one to show the maximum fit. The variable  $X_6$  (other interest expenditures to total expenditures) explains 17.81 per cent of variations in bank profitability. With the introduction of the next variable, i.e.,  $X_2$  (non-performing assets as percentage of advances) it is revealed that both the variables taken together explain 24.97 per cent of the variations and the variable  $X_2$  alone have an impact of 7.16 per cent. With the addition of  $X_{18}$  (total credit to total deposits), the co-efficient of determination ( $R^2$ ) has increased

to 37.65 per cent and this variable ( $X_{18}$ ) alone contributes to the extent of 12.68 per cent. Similarly, by inclusion of further variables in the order given, which have an impact of these variables in profitability are as follows:  $X_{15}$  (savings deposits to total deposits) 11.42 per cent;  $X_{11}$  (income from investments to total income) 5.43 per cent;  $X_{20}$  (fixed assets to working funds) 2.67 per cent;  $X_{19}$  (liquid assets to total deposits) 2.57 per cent;  $X_9$  (provisions and contingencies to total expenditures) 1.89 per cent; and  $X_{16}$  (demand deposits to total deposits) 2.79 per cent.

**Table - 6: Swmr Analysis – Pb Group - Period – II**

(In per cent)

Variables	R <sup>2</sup>	Increase in R <sup>2</sup>
X <sub>21</sub> - Capital Adequacy Ratio	40.67	–
X <sub>15</sub> - Savings Deposits to total Deposits	48.29	7.62
X <sub>14</sub> - Other Income to Total Income	52.71	4.42
X <sub>2</sub> - Non Performing Assets to Advances	56.56	3.85
X <sub>9</sub> - Provisions & Contingencies to Total Expenditures	59.23	2.67
X <sub>6</sub> - Other Interest Expenses to Total Expenses	59.52	0.29
X <sub>19</sub> - Cash to Total Deposits	60.89	1.37
X <sub>16</sub> - Demand Deposits to Total Deposits	62.72	1.83

An in-depth study of the Table 6 depicts that the variable X<sub>21</sub> appeared as the first variable and thereafter-subsequent variables were added one by one to show the maximum fit. The variable X<sub>21</sub> (capital adequacy ratio) explains 40.67 per cent of variations in bank profitability. With the introduction of next variable, i.e., X<sub>15</sub> (savings deposits as percentage of total deposits) it is revealed that both the variables taken together explain 48.29 percent of the variations and the variable X<sub>15</sub> alone have an impact of 7.62 per cent. With the addition of X<sub>14</sub> (other income to total income), the co-efficient of determination (R<sup>2</sup>) has increased to 52.71 per cent and this variable (X<sub>14</sub>) alone contributes to the extent of 4.42 percent. Similarly, by insertion of further variables in the order given, which have an impact of the variable in profitability are as follows: X<sub>2</sub> (non-performing assets to advances) 3.85 per cent; X<sub>9</sub> (provisions and contingencies to total expenditures) 2.67 per cent; X<sub>6</sub> (other interest expenses to total expenses) 0.29 per cent; X<sub>19</sub> (liquid assets to total deposits) 1.37 per cent; and X<sub>16</sub> (demand deposits to total deposits) 1.02 per cent.

### Suggestions

To improve the profits and profitability, banks need to focus their attention on certain issues. The suggestions may differ from bank to bank. Hence, the following suggestions are given with the intention of increasing the profitability of the respective groups of banks.

### i. Minimising establishment expenses

The establishment expense constitutes the second largest item of the total expenses of commercial banks in India. These establishment expenses need to be monitored regularly by the Nationalised Banks and State Bank of India and its associate banks by dividing it into controllable and non-controllable aspects. Though the staff salary structure of banks is subject to bilateral agreements with the trade unions, the utilization 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. If necessary the Voluntary Retirement Scheme can also be continued to reduce the burden of establishment expenses to a certain extent, taking into consideration the pros and cons of such activity on the society.

### ii. Generating more non-interest income

The Nationalised Banks must concentrate on increasing the non-interest income. To bring improvement in income generation, it 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 necessary that it 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 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, *prima facie*, no justification to enter into loss-making areas.

### **iii. Enhancing Deposit Mobilisation**

Both State Banks Group and Nationalised banks group must concentrate on mobilization of more deposits. Banks must put maximum efforts to attract time deposits, which contribute significantly towards the enhancement of bank profitability. Admittedly, mobilizing fixed deposits is becoming difficult due to competition from mutual funds; still, scope for enhancement of short-term deposits exists by improved customer service, providing attractive gifts at a minimal cost range to their valuable customers, better nomination facilities and by the introduction of sophisticated technology and communication systems.

### **iv. Improving Credit-Deposit Proportion**

Utilisation of deposit amount for credit is one of the pivotal activities of all commercial banks. In this regard, the Nationalised Banks and Private Banks must concentrate more on credit in all the regions (i.e., Northern, North Eastern, Eastern, Central, Western and Southern Regions). The SBI group should concentrate more on Eastern, Western and Central Regions. While sanctioning credit, the national importance must be considered and monitory mechanism should be implemented to assess the ultimate use of credit. All such activities must aim to boost the economic prosperity and they should not violate the social control over banks.

### **v. Introducing Innovative Branch Administration**

The poor performance of branch administration in most of the rural areas must be noted down by all the three groups of banks i.e., SBI group, Nationalised Banks group and Private Banks group. The rural and semi-urban areas account for 65 per cent of the total branches of the scheduled commercial banks in India, their combined share in aggregate deposits is not greater than 35 per cent. This indicates that the commercial banks have not made adequate efforts to tap the deposit potential in rural and semi-urban areas in the desired manner – which is the lacuna to be removed in future. The managers of the rural branches should make special efforts to assess the savings and lending potential in the rural areas on the basis of house-to-house and field visits from time to time.

### **vi. Control of NPA through the Debt-recovery Tribunal**

The mounting non-performing assets should be noted down by all the three groups of banks. It is a matter of general concern that the quality of lending has gone down. On the one hand, this has resulted in mounting non-performing assets, and on the other, shaken the viability of many branches, particularly in rural areas. With the increase in undue interference in the matter of credit disbursement, the bankers' morale gets dampened when they find that a considerable portion of the overdues is either preplanned or willful. The impact of the 'insane' political ideology of waiving loans has greatly hampered the loans recovery programme, especially in the agricultural sector. Thus, political interference in the guise of "social control" should not be permitted to play its dissipative role. The existing Debt Recovery Tribunals (DRTs) can be activated to introduce more monitoring mechanism to control the non-performing assets to a maximum extent possible.

### **vii. Rational Investment Management**

The investment portfolio of commercial banks shows the impact of seasonality i.e., investments rise during the slack season when the banks have surplus funds and fall during

the busy season when they are called upon to finance the credit needs of trade and industry. Since the slack and busy seasons are roughly of six months duration, it is desirable to introduce comparatively longer time Treasury Bills of 180 days and 364 days duration to enable the banks to invest their slack season surplus funds in these Treasury Bills. Since the period of maturity of these bills would be longer compared to the 91 days period of the existing Treasury Bills, they should bear proportionately higher yield. Such measures will not only enable banks to have wider scope for short-dated securities but also will improve their profitability.

#### **viii. Monitoring and Controlling Mechanism on Important Ratios**

One or more of the techniques under multivariate analyses reveals significant result at 1% level for certain variables under two periods of SBI group, NB group and PB group. All the three groups should concentrate on the following ratios: i) Non-performing assets to advances, ii) Rural branches to total branches, iii) Cost of deposits to total expenses, iv) Cost of borrowings to total expenses, v) Establishment expenses to total expenses, vi) Other operating expenses to total expenses, vii) Provisions and contingencies to total expenses, viii) Interest earned on advances to total income, ix) Income from investments to total income, x) Demand deposits to total deposits, xi) Time deposits to total deposits and xii) Credit - Deposits ratio.

#### **ix. Introducing Modern Marketing Strategies**

The entire bank group can adopt the new marketing strategies to attract the proposed customers and to retain the existing customers with the aim of improving the profitability. A few modern marketing strategies are: under-writing of new issues especially preference shares and debentures, introduction of the credit transfer scheme on the lines of the scheme recently introduced in U.K., farm financing, credit cards and virtual banking services such as Automated Teller Machines (ATMs), Shared ATM Networks, Electronic Fund Transfer at Point of sale (EFTPos), Smart Cards, Stored-value Cards, Phone-Banking, Internet and Intranet Banking.

#### **x. Prudential disclosure of financial Information**

The commercial banks should prepare their financial reports to match international accounting standards. To begin with, efforts may be made in the following specific areas:

- i) Analysis of Assets and Liabilities by Maturities,
- ii) Undisclosed Reserves,
- iii) Classification of Assets and Liabilities by Name,
- iv) Disclosure as to Existence and Amount of Irrevocable Commitments and
- v) The position of Gross NPAs and Net NPAs.

All these prudential disclosures will indirectly help the banks to improve their profitability position.

#### **Conclusion**

The present study entitled 'Profitability of Commercial Banks in India' is a fact-finding research. In the course of study, some aspects of factors influencing total earning, total expenditure and the profitability of Indian scheduled commercial banks in India have been examined. The step wise multiple regression analysis of the profitability undertaken in this study, discloses the relationship among the earning factors and expenses factors on the profitability of the banks. All these information will create an opinion in the mind of management of the bank, and they can easily assess the strength, weakness, opportunities and threats (SWOT) of the banks, which will ultimately boost the profitability of the banks.

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