

## **CHAPTER – VI**

### **Profitability of Commercial Banks in India during the Reforms**

- 6.1 Introduction
- 6.2 Objectives of the Study
- 6.3 Review of Literature
- 6.4 Research Methodology
- 6.5 Analysis, Results and Discussions
- 6.6 Conclusion

## **PROFITABILITY OF COMMERCIAL BANKS IN INDIA DURING THE REFORMS**

### **6.1 Introduction**

In the light of liberalization, privatization and globalization a lot of challenges were faced by the commercial banks. After the nationalization and till the early 1990s, the main thrust of banking operations was on social banking and accordingly the emphasis was placed on enhancing the branch network in rural and semi-urban areas. Further banks had to undertake several responsibilities which included financing the fiscal deficit and facilitating the development of certain specific sectors as reflected in high and increasing prescriptions of SLR and directed lending. By and large, banking remained concentrated in the public sector and functioned in a highly regulated environment. All this implied that profit earning was not considered as an important objective. While all these social objectives continue to be important from the socio-economic perspective even today, profitability of banking assumed significant importance in the context of financial sector reforms, which have resulted in increased competition to enhance efficiency/productivity and positioning stringent supervisory norms on the lines of international best practice to ensure banking soundness.

An important question which arises in this context is whether banks should focus on social responsibilities and facilitate growth of specific sectors or should aim at enhancing profitability based on commercial considerations. Profit motive has surfaced in recent years from a number of valid considerations. Profitability of the banking sector assumes critical importance in order to retain confidence of the saving community, who view banking as one of the safest channels of savings. Earlier as most of the banks were in the public sector, the financial soundness per se was not viewed as quite essential to sustain confidence of the depositors, as there was built in confidence on account of public ownership. With the launching of financial sector reforms and move towards enhancing competition/reduction in Government equity holding, increased efficiency to meet new challenges have been at the forefront of sound and stable banking system.

The phenomenal growth in the business of new private sector banks is a testimony to this challenge. Furthermore, the strain on the fiscal system may not permit continued Government support through capitalization.

**Table 6.1:** Net Profit as a Percentage of Total Assets during the period 1995 – 2007.

Year	Public Sector Banks	Old Private Sector Banks	New Private Sector Banks	Foreign Banks	All Scheduled Commercial Banks
<b>1995-1996</b>	-0.07	1.06	1.85	1.58	0.16
<b>1996-1997</b>	0.57	0.91	1.73	1.19	0.67
<b>1997-1998</b>	0.77	0.81	1.55	0.97	0.82
<b>1998-1999</b>	0.42	0.48	1.03	0.69	0.47
<b>1999-2000</b>	0.57	0.84	0.97	1.17	0.66
<b>2000-2001</b>	0.42	0.59	0.81	0.93	0.49
<b>2001-2002</b>	0.72	1.08	0.44	1.32	0.75
<b>2002-2003</b>	0.96	1.17	0.90	1.56	1.01
<b>2003-2004</b>	1.12	1.20	0.83	1.65	1.13
<b>2004-2005</b>	0.87	0.33	1.05	1.29	0.89
<b>2005-2006</b>	0.82	0.58	0.97	1.54	0.88
<b>2006-2007</b>	0.83	0.7	0.91	1.65	0.90

**Source:** Report on Trend & Progress of Banking in India, RBI

An important aspect of banking soundness amply echoed in high capital adequacy ratios. Banks would be in a better position to enlarge their equity base through public issues, if the banks are in sound financial condition and enjoy investors' confidence and continue to observe various prudential measures prescribed from time to time. Another way to enhance capital ratios is through reinvested profits. Thus, enhancing the strength of the banking institutions depends upon the inherent strength and efficiency of any bank. Thus, we cannot afford the luxury of ignoring profitability of banks and factors contributing in enhancing the same. In view of the foregoing, the quest for profitability is central both from the point of view of safeguarding and strengthening the viability of

banks and their ability to serve the socio-economic objectives of the society. In this context, identification of determinants of profitability would facilitate efficient use of bank resources and long-term banking performance. An attempt is made in this chapter to examine and identify the factors, which influence banking profitability in India. Table 6.1 shows a comparative profit performance (Net Profit as a % of Total Assets) of different Bank-Groups during the period 1995 – 2007.

## **6.2 Objectives of the Study**

The above table shows an improvement in the performance of almost all the bank groups, although this has not been uniform across individual banks within the same bank group. The differential profit performance has been attributed to various factors. The objective of the study is to identify these factors and examine whether they have any significant influence on profitability of banks in India.

## **6.3 Review of Literature**

There are many micro and macro level studies conducted by individuals and institutions, which analyzed the factors affecting the profitability of commercial banks in India. Some of the recent studies are reviewed as follows:

*Shah* (1977), in his various papers discussed bank profitability and productivity. He expressed concern about increased expenses and overheads. Slow growth in productivity and efficiency, wasteful work of banks that higher profitability can result from increased spread and that innovations have a limited role. He favoured written job descriptions for improvement to staff productivity. He also emphasized reduction of costs, creation of a team spirit improvement in the management for improving bank profitability and productivity.

*Swamy and Subrahmanyam* (1993), attempted to focus on profitability within public sector banks in an attempt to set benchmark for laggards.

*Satyamurty* (1994), clarified the concepts of profits, profitability and productivity applicable to the banking industry. It is organized by the bank managements that the pressure on the profitability is more due to the factors beyond their control. He suggested the technique of ratio analysis to evaluate the

profit and profitability performance of banks. He opined that endeavors should be made to improve the spread performance through better funds management.

*Murty* (1996), analyzed various factors, which can be helpful to improve the profitability of public sector banks. The study examine the impact of monetary policy and market interest rates on the bank profitability and also suggest various measures to improve the profitability of the public sector banks in India.

*Sarker and Das* (1997), compares the performance of public, private and foreign banks for the year 1994-95 by using measures of profitability, productivity and financial management. They found PSBs performing poorly with the other two categories. However, they give caution that no firm inference can be derived from a comparison done for a single year.

*Das* (1999), compares performance among public sector banks for three years in the post-reform period, 1992, 1995 and 1998. He finds a certain convergence in performance. He also notes that while there is a welcome increase in emphasis on non-interest income, banks have tended to show risk-averse behaviour by opting for risk-free investments over risky loans.

*Sabnani* (2000), analyzed the importance of “Universal Banking” in India. Globalization, Liberalization and Deregulation of financial markets in many developed and developing countries have resulted in increased disintermediation and have made commercial banks vulnerable to interest rate risk. Relaxing exchange controls, adopting uniform accounting practices concerning income recognition, assets classification, provisioning norms, and prescribing capital adequacy norms has further aggravated the position. Now the developments in IT and telecommunications are allowing international pooling of financial resources thereby spreading the risk across more than one market. He feels that Universal Banking System will come to stay in India in the near future. There is therefore need to prepare ourselves right now.

*Swamy* (2001), studied the comparative performance of different bank-groups since 1995-96 to 1999-2000. During this period, IT, new competition, deregulation took place. He studied three important aspects:

- What has been the impact of financial sector reforms on the structure of the Indian banking system?
- What are the advantages reaped by some of the new Indian private and foreign banks vis-à-vis PSBs?
- Whether new competition has enhanced the overall efficiency of the banking system?

Swamy identified those factors, which could have led to changes in the position of individual banks in terms of their share in the overall banking industry.

*Kaveri* (2001), in his study attempts to extend the study conducted by the Verma Committee more specifically to ascertain whether enough signals of weakness were indicated much before the event. The present study considers 1998-99 as the year of event when the Verma Committee identified weak banks, strong banks and potential weak banks. This study considers nine efficiency parameters, which are computed, based on the data collected from the RBI publications. The parameters include –

- Capital Adequacy Ratio
- Net Non Performance Assets / Net Adequacy
- Net Profit / Total Assets
- Gross Profit / Working Funds
- Net Interest Income / Total Assets
- Interest Expended / Total Assets
- Intermediation Cost / Total Assets
- Provision and Contingencies / Total Assets

The above parameters focus on two major concerns of banks i.e. loan default and profitability whereas the Verma Committee covered all aspects of financial health. This article has given some evidence to indicate that no bank can be weak or potential weak all of a sudden. There is a gradual deterioration in the position of loan default and profitability. Hence, it is to be suggested to develop a ratio model to arrive at a single score to classify banks into three categories i.e. weak, strong and potential weak.

*Passah, P.M.* (2002), analyzed the Indian financial system comprising the commercial banks, the financial institutions and the capital markets. He concluded that Indian banking has undergone a very rapid transformation in the past three decades. There is a sea change in the Indian banking sector in the post-financial sector reforms.

*Shveeta and Satis Verma* (2002), analyzed the inter-temporal profitability behavior of SBI group, other nationalized and foreign banks in India. They empirically estimated factors influencing the profitability of banks. They concluded that priority sector advances (in case of PSBs) and spread and burden (for all categories of banks) were the major and significant factors that influence the profitability of banks.

## **6.4 Research Methodology**

### **6.4.1 Bank Groups**

We have categorized the banks into seven groups for our study, viz.:

- (A) Scheduled Commercial Banks
- (B) Public Sector Banks
- (C) Nationalized Banks
- (D) State Bank Group
- (E) Old Public Sector Banks
- (F) Old Private Sector Banks
- (G) New Private Sector Banks
- (H) Foreign Banks

### **6.4.2 Study Period**

The study covers secondary data for a very recent period of 3 years, ranging from 2004-05 to 2006-07.

### 6.4.3 Variables Used

Six factors or variables have been selected which are affecting the profitability of the banks in either direction. They are as follows:

<b>Dependent Variable</b>	<b>Independent Variable</b>
Net Profit as a % of Total Assets (Net Profit) – <b>Y</b>	1. Interest Income as % of Total Assets (Interest Income) – <b>X<sub>1</sub></b> 2. Other Income as % of Total Assets (Other Income) – <b>X<sub>2</sub></b> 3. Interest Expenses as % of Total Assets (Interest Expenses) – <b>X<sub>3</sub></b> 4. Operating Expenses as % of Total Assets (Operating Expenses) – <b>X<sub>4</sub></b> 5. Net NPA as % of Total Assets (Net NPA) – <b>X<sub>5</sub></b> 6. Spread (NII) as % of Total Assets (Spread) – <b>X<sub>6</sub></b>

NII – Net Interest Income

### 6.4.4 Hypothesis

An attempt has been made in this chapter to test the following hypothesis:

“Net Profit of different bank groups depends upon Interest Income, Other Income, Interest Expenses, Operating Expenses, Net NPA and Spread.”

### 6.4.5 Statistical and Econometric Techniques Used

- For the simplification of the study we have taken the mean of the figures of three consecutive years i.e. 2004 – 2007.
- Multiple Correlation and Multiple Regression Technique (Enter and Forward Stepwise Method) have been used for the study.
- To calculate all the statistical results, SPSS Package (Version – 16.0) has been used.

#### 6.4.6 The Data Set

Table 6.2: Important Financial Indicators - Bank Group-wise (2004 – 2007)(%)

<b>Bank Groups / Years</b>	<b>Net Profit (Y)</b>	<b>Interest Income (X<sub>1</sub>)</b>	<b>Other Income (X<sub>2</sub>)</b>	<b>Interest Expenses (X<sub>3</sub>)</b>	<b>Operating Expenses (X<sub>4</sub>)</b>	<b>Net NPA (X<sub>5</sub>)</b>	<b>Spread (NII) (X<sub>6</sub>)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>(A) Scheduled Commercial Banks:</b>							
2004-05	0.89	6.61	1.46	3.78	2.13	1.28	2.83
2005-06	0.88	6.65	1.27	3.85	2.13	1.07	2.81
2006-07	0.90	6.85	1.12	4.16	1.91	1	2.69
<b>Mean</b>	<b>0.89</b>	<b>6.70</b>	<b>1.28</b>	<b>3.93</b>	<b>2.06</b>	<b>0.72</b>	<b>2.78</b>
<b>(B) Public Sector Banks:</b>							
2004-05	0.87	6.79	1.36	3.88	2.09	1.31	2.91
2005-06	0.82	6.84	1.09	4	2.05	1.06	2.85
2006-07	0.83	6.89	0.86	4.24	1.77	0.91	2.65
<b>Mean</b>	<b>0.84</b>	<b>6.84</b>	<b>1.10</b>	<b>4.04</b>	<b>1.97</b>	<b>0.76</b>	<b>2.80</b>
<b>(C) Nationalized Banks:</b>							
2004-05	0.89	6.91	1.32	3.89	2.18	1.28	3.02
2005-06	0.81	6.74	0.9	3.84	2	0.98	2.89
2006-07	0.85	6.89	0.79	4.18	1.73	0.92	2.71
<b>Mean</b>	<b>0.85</b>	<b>6.85</b>	<b>1.00</b>	<b>3.97</b>	<b>1.97</b>	<b>0.69</b>	<b>2.87</b>
<b>(D) State Bank Group:</b>							
2004-05	0.91	7.02	1.51	3.96	2.14	1.53	3.06
2005-06	0.86	7.13	1.38	4.05	2.28	1.31	3.07
2006-07	0.82	6.99	0.97	4.2	1.98	0.96	2.79
<b>Mean</b>	<b>0.86</b>	<b>7.05</b>	<b>1.29</b>	<b>4.07</b>	<b>2.13</b>	<b>0.89</b>	<b>2.97</b>
<b>(E) Other Public Sector Banks:</b>							
2004-05	0.38	3.26	0.77	3.03	0.56	0.07	0.23
2005-06	0.63	6.08	1.45	5.65	0.97	0.27	0.43
2006-07	0.61	6.11	0.99	5.48	0.75	0.27	0.63
<b>Mean</b>	<b>0.54</b>	<b>5.15</b>	<b>1.07</b>	<b>4.72</b>	<b>0.76</b>	<b>0.79</b>	<b>0.43</b>
<b>(F) Old Private Sector Banks:</b>							
2004-05	0.33	6.95	0.94	4.25	1.96	1.35	2.7
2005-06	0.58	6.92	0.81	4.17	2.06	0.93	2.75
2006-07	0.7	7.25	0.9	4.42	1.85	1.19	2.83
<b>Mean</b>	<b>0.54</b>	<b>7.04</b>	<b>0.88</b>	<b>4.28</b>	<b>1.96</b>	<b>0.96</b>	<b>2.76</b>

<b>Bank Groups / Years</b>	<b>Net Profit (Y)</b>	<b>Interest Income (X<sub>1</sub>)</b>	<b>Other Income (X<sub>2</sub>)</b>	<b>Interest Expenses (X<sub>3</sub>)</b>	<b>Operating Expenses (X<sub>4</sub>)</b>	<b>Net NPA (X<sub>5</sub>)</b>	<b>Spread (NII) (X<sub>6</sub>)</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
<b>(G) New Private Sector Banks:</b>							
2004-05	1.05	5.77	1.74	3.6	2.06	0.8	2.17
2005-06	0.97	5.89	1.63	3.62	2.12	0.81	2.27
2006-07	0.91	6.75	1.65	4.41	2.11	0.97	2.34
<b>Mean</b>	<b>0.98</b>	<b>6.14</b>	<b>1.67</b>	<b>3.88</b>	<b>2.10</b>	<b>0.59</b>	<b>2.26</b>
<b>(H) Foreign Banks:</b>							
2004-05	1.29	5.97	2.52	2.63	2.88	1.69	3.34
2005-06	1.54	6.17	2.69	2.58	2.94	1.8	3.58
2006-07	1.65	6.48	2.5	2.74	2.78	1.8	3.74
<b>Mean</b>	<b>1.49</b>	<b>6.21</b>	<b>2.57</b>	<b>2.65</b>	<b>2.87</b>	<b>0.39</b>	<b>3.55</b>

**Source:** Trend and Progress of Banking in India, 2006-2007 and Balance sheets of respective banks.

**Note:**

1. The number of scheduled commercial banks in 2004-05, 2005-06 and 2006-07 were 88, 85 and 82, respectively.
2. The number of old private banks in 2004-05, 2005-06 and 2006-07 were 20, 20 and 17, respectively.
3. The number of new private banks in 2004-05, 2005-06 and 2006-07 were 9, 8 and 8, respectively.
4. The number of foreign banks in 2004-05, 2005-06 and 2006-07 were 31, 29 and 29, respectively.
5. Figures in the table are percentages to total assets.
6. NII - Net Interest Income.
7. Scheduled commercial banks data for 2005-06 are as reported in the balance sheets for 2006-07 and hence may not tally with those reported in the Report on Trend and Progress of Banking in India, 2005-06, to the extent the figures of 2005-06 were revised by some banks.

## 6.5 Analysis, Results and Discussions

### 6.5.1 Correlation Analysis

**Table 6.3:** Correlation Matrix of Select Financial Indicators of Group-wise Banks (2004 – 2007)

Variables	Measures	Net Profit (Y)	Int. Inco me (X <sub>1</sub> )	Other Income (X <sub>2</sub> )	Int. Exp. (X <sub>3</sub> )	Op. Exp. (X <sub>4</sub> )	Net NPA (X <sub>5</sub> )	Spread (NII) (X <sub>6</sub> )
<b>Net Profit</b>	Pearson Correlation	1.00	0.02	0.93**	-0.97**	0.81*	-0.88**	0.63
	Sig. (2-tailed)		0.96	0.00	0.00	0.01	0.00	0.10
<b>Interest Income</b>	Pearson Correlation	0.02	1.00	-0.24	-0.14	0.55	0.34	0.78*
	Sig. (2-tailed)		0.96		0.56	0.75	0.16	0.41
<b>Other Income</b>	Pearson Correlation	0.93**	-0.24	1.00	-0.90**	0.67	-0.87**	0.40
	Sig. (2-tailed)		0.00	0.56		0.00	0.07	0.01
<b>Interest Expenses</b>	Pearson Correlation	-0.97**	-0.14	-0.90**	1.00	-0.88*	0.82*	-0.73*
	Sig. (2-tailed)		0.00	0.75	0.00		0.00	0.01
<b>Operating Expenses</b>	Pearson Correlation	0.81*	0.55	0.67	-0.88**	1.00	-0.52	0.94**
	Sig. (2-tailed)		0.01	0.16	0.07	0.00		0.18
<b>Net NPA</b>	Pearson Correlation	-0.88**	0.34	-0.87**	0.82*	-0.52	1.00	-0.28
	Sig. (2-tailed)		0.00	0.41	0.01	0.01	0.18	0.51
<b>Spread</b>	Pearson Correlation	0.63	0.78*	0.40	-0.73*	0.94**	-0.28	1.00
	Sig. (2-tailed)		0.10	0.02	0.33	0.04	0.00	0.51

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

Table 6.3 shows the output of correlation table. The values in the correlation table are standardized and range from 0 – 1 (positive and negative).

First column of Table 6.2 shows that except for Interest Income ( $X_1$ ), all the other variables are highly correlated (ranging from 0.63 to 0.97) either positively or negatively with the dependent variable, Net Profit ( $Y$ ). This means that we may have chosen a fairly good set of independent variables ( $X_2$ ,  $X_3$ ,  $X_4$ ,  $X_5$  and  $X_6$ ) to correlate with Net Profit ( $Y$ ). Interest Expenses ( $X_3$ ) and Net NPA ( $X_5$ ) are rightly negatively correlated with Net Profit. But surprisingly, Operating Expense ( $X_4$ ) is positively correlated with Net Profit.

The correlation table can also be used to find out the correlation between independent variables. We further observe that except for the Interest Income ( $X_4$ ) column, all other independent variables are more or less highly correlated with each other. This indicates that they are not independent of each other and only one or two of them can be used to predict the dependent variable, Net Profit. Regression is helpful in eliminating some of the independent variables as all of them are not required. Some of them, being correlated with other variables, do not add any value to the regression model.

### 6.5.2 Regression Analysis

A Regression Analysis is done to explain the variation in one variable (dependent variable), based on variation in one or more other variables (independent variables). In case there is only one independent variable to explain the variation in one dependent variable, it is known as simple regression. If there are multiple independent variables to explain the variation in a single dependent variable, it is known as a multiple regression model. In this case, we use multiple regression model to arrive at a solution.

### **6.5.2.1 ENTER Method**

The regression model of the following form has been used by entering all the six independent variables in the model:

As per the Enter Method (Table 6.4) [SPSS Package (Version 16.0)], the value of 'B', the unstandardized coefficients give all the coefficients of the included 5 independent variables of the model, which are as follows:

$$\mathbf{b}_2 = 0.86$$

$$b_3 = 0.66$$

$$b_4 = -0.76$$

$$b_5 = -1.25$$

$$b_6 = 0.68$$

$$a = -2.21$$

**Note:** Interest Income (X1) is excluded for the purpose of regression (Table 6.5), the unstandardized beta coefficient of which is 0.96.

The above values can be substituted in the regression equation no....(1) to get and predict the value of Y (Net Profit):

**Net Profit = - 2.21 + 0.86\* (Other Income) + 0.66\* (Interest Expenses)**

**- 0.76\* (Operating Expenses) - 1.25\* (Net NPA) +**

**0.68\* (Spread)** .....(2)

### **Interpretation:**

- From the above equation it can be inferred that if ‘Other Income’ is increased by 1%, ‘Net Profit’ will be increased by 0.86%, assuming all the other variables to be constant. Similarly the influence on the ‘Net Profit’ for every % increase or decrease in the above 5 factors can be explained by their coefficients case by case.
  - In multiple-regression analysis, the regression coefficients often become less reliable as the degree of correlation between the independent variables increases. If there is a high level of correlation between the independent variables, we have a problem that statisticians call multicollinearity. The last column in Table 6.4 is Collinearity Statistics. In this column, we get statistics for testing multicollinearity in the model. Collenearity Statistics gives two values – Tolerance and VIF (variance inflation factor). Tolerance is just the inverse of VIF. A value of VIF higher than 5 or Tolerance less than 0.2 indicates the presence of multicolinearity. In social sciences research, a VIF value as high as 10 is considered to be acceptable. Here in the model VIF value for all the 5 included independent

variables are more than 10 or the Tolerance is less than 0.2. So there exists every sign of multicollinearity in the model as reflected in Table 6.4.

- The 5 independent variables as used in equation no.(2) are not good predictors for ‘Net Profit’, as there exists multicollinearity i.e. strong inter-relationships between the independent variables as was reflected in Table 6.3 showing Correlation Matrix.

**Table 6.5:** Excluded Variables<sup>b</sup>

<b>Model</b>	<b>Beta In</b>	<b>t</b>	<b>Sig.</b>	<b>Partial Co-relation</b>	<b>Collinearity Statistics</b>		
					<b>Tolerance</b>	<b>VIF</b>	<b>Minimum Tolerance</b>
<b>Interest Income</b>	0.96 <sup>a</sup>	3.48	0.18	0.96	8.90E-05	1.12E+04	4.11E-05

a. Predictors in the Model: (Constant), Spread, Net NPA, Other Income, Operating Expenses, Interest Expenses

b. Dependent Variable: Net Profit

### **6.5.2.2 FORWARD Stepwise Regression Method:**

When the problem involves 6 independent variables, all the variables may not be equally important. It may be that some combinations can effectively explain the variation better than others. To resolve this uncertainty, an evaluation of various combinations of independent variables can be done in different regression equations. The number of variables to be included in the analysis should be decided upon. Stepwise multiple regression analysis is done for the above purpose. Here we have applied FORWARD Stepwise regression method.

It is a model, in which the algorithm adds one factor at a time, starting with the one which explains most of the variation in ‘Net Profit’ and adding any one of the given six factors to it, rechecking the model to see that both the variables form a good model, then adding a third variable to see that it could still add to the explanation of ‘Net Profit’ and so on.

Table 6.6 shows that the result of running a forward stepwise regression, which ends up only one out of 6 factors in the regression model. The only

variable included in the model is Interest Expenses ( $X_3$ ). This explains the principle of multicollinearity, i.e. there is some dependency between the independent variables taken.

Based on the model from Table 6.6, the equation can be written as follows:

**Net Profit = 2.80 - 0.49\* (Interest Expenses) .....(3)**

Table 6.9 shows the F-test for the model, which is highly significant and the  $R^2$  value for the model is 0.94 which shows that 94% of the variation in ‘Net Profit’ can be explained by the only independent variable, Interest Expenses (Table 6.9). The t-value of ‘Interest Expenses’ is also highly significant as per Table 6.6. As the value of VIF is less than 5 i.e. 1 as per Table 6.6, there exists no multicollinearity in this model and hence the equation no.(3) is quite reliable.

Table 6.6: Coefficients<sup>a</sup>

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error						Tolerance	VIF
(Constant)	2.80	0.21		13.50	0.00	2.29	3.31		
Interest Expenses	-0.49	0.05	-0.97	-9.38	0.00	-0.62	-0.36	1.00	1.00

#### a. Dependent Variable: Net Profit

Table 6.7: Excluded Variables<sup>b</sup>

Model	Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
					Tolerance	VIF	Minimum Tolerance
Interest Income	-0.11*	-1.08	0.33	-0.44	0.98	1.02	0.98
Other Income	0.31*	1.47	0.20	0.55	0.20	5.12	0.20
Operating Expenses	-0.19*	-0.82	0.45	-0.34	0.22	4.57	0.22
Net NPA	-0.27*	-1.76	0.14	-0.62	0.33	2.99	0.33
Spread	-0.16*	-1.09	0.33	-0.44	0.47	2.11	0.47

a. Predictors in the Model: (Constant), Interest Expenses

b. Dependent Variable: Net Profit

**Table 6.8:** Collinearity Diagnostics<sup>a</sup>

Dimension	Eigen Value	Condition Index	Variance Proportions	
			(Constant)	Interest Expenses
1	1.990	1.000	0.00	0.00
2	0.010	14.407	1.00	1.00

a. Dependent Variable: Net Profit

**Table 6.9:** ANOVA<sup>b</sup>

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	0.577	1	0.577	87.896	0.000 <sup>a</sup>
Residual	0.039	6	0.007		
Total	0.616	7			

a. Predictors: (Constant), Interest Expenses

b. Dependent Variable: Net Profit

**Table 6.10:** Model Summary<sup>b</sup>

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.97 <sup>a</sup>	0.94	0.925	0.081	3.005

a. Predictors: (Constant), Interest Expenses

b. Dependent Variable: Net Profit

## 6.6 Conclusion

From the above calculation, it is clear that ‘Interest Expenses’ is the only good predictor for ‘Net Profit’ of all different bank groups taking together during the years 2004-05 to 2006-07 with the given data set. The study may be extended to take other important variables into consideration as well as to include other years after 1991 or to calculate the factors affecting ‘Net Profit’ of each bank group individually over a certain period of time.

**Table 6.4: Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	B	Std. Error				Lower Bound	Upper Bound	Tolerance	VIF
(Constant)	-2.21	0.17		-13.14	0.01	-2.93	-1.48		
Other Income	0.86	0.03	1.59	28.90	0.00	0.74	0.99	0.01	67.97
Interest Expenses	0.66	0.04	1.30	18.13	0.00	0.50	0.81	0.01	115.55
Operating Expenses	-0.76	0.04	-1.48	-21.01	0.00	-0.92	-0.60	0.01	111.07
Net NPA	-1.25	0.04	-0.75	-31.12	0.00	-1.43	-1.08	0.08	12.99
Spread	0.68	0.03	2.12	25.88	0.00	0.57	0.79	0.01	150.39

a. Dependent Variable: Net Profit