CHAPTER 5

FINANCIAL PERFORMANCE OF STATE BANK OF PATIALA

5.1 INTRODUCTION

Strategic Initiatives like Business Process Reengineering (BPR) are taken to improve overall efficiency of business. Efficiency here means operational as well as financial efficiency of business. In case of banking organizations financial performance is of paramount importance. Banks are not only responsible towards their customers but they are primarily accountable towards shareholders. Therefore, various strategic business initiatives like ABC, TQM have been taken from time to time to improve banks' efficiency and in this way BPR has been considered as the finest tool to meet challenges faced by banks.

It is comprehensible that performance of economy could be judged by the health of its banks **(Haque and Sharman, 2011)**. An important requisite, to counter this question, is the profitability measurement. As State Bank of Patiala introduced BPR after year 2005, therefore, it becomes crucial to measure financial performance of the bank after implementation of BPR. In this chapter an attempt has been made to analyze whether BPR has brought any financial benefits post BPR period.

In banking, it is believed that it is the chief duty of bank to contribute towards various stakeholders like customers, employees, shareholders, communities and environment in such a manner that all parties get satisfaction from their invested business model and get maximum return on their investments. Financial performance is a measure of financial wellbeing of an organization and measure to analyse the usage of assets to create value for its stakeholders particularly shareholders. Banks believe that it is the foremost duty to serve the interests of society at large and this objective can only be achieved if banks

earn profits. Banks measure their performance on the basis of financial, social and environmental impact.

Therefore, various tools are being used to measure the performance or financial health of a bank. Various authors recommended the usage of ratios for performance measurement in the shape of earnings analysis **(Hansda and Sanjay, 1995).** The earnings analysis has been done by analysts like **Sankaranarayan, (1995), Kapil et.al, (2003),** and so on, with the help of various accounting ratios.

Hypotheses of the study

As BPR has been implemented in SBOP in the year 2005, it becomes necessary to observe its impact on BPR. Therefore, following hypotheses have been developed to know whether there has been any impact of BPR implementation in the bank.

H5A There is significant improvement in financial performance in the bank, post BPR period (Pre BPR period 2001 to 2005 and Post BPR 2006-2010).

H5-1 There is significant improvement Capital Adequacy Post BPR implementation.

H5-2 There is significant improvement in Asset Quality, Post BPR implementation.

H5-2a There is significant improvement in Net NPAs as percentage of Net Advances, Post BPR implementation.

H5-2b There is significant improvement in Priority Sector Advances as a percent of Total Advances, Post BPR implementation.

H5-3 There is significant improvement in Management efficiency, Post BPR implementation.

H5-3a There is significant improvement in Deposit Per Employee, Post BPR implementation.

H5-3b There is significant improvement in Credit Per Employee, Post BPR implementation.

H5-3c There is significant improvement in Business Per Employee, Post BPR implementation.

H5-3d There is significant improvement in Profit Per Employee.

H5-4 There is significant improvement in Earning quality, Post BPR implementation

H5-4a There is significant improvement in Return on Assets, Post BPR implementation.

H5-4b There is significant improvement in Return on Equity, post BPR implementation.

H5-4c There is significant improvement in Spread Ratio, post BPR implementation.

H5-4d There is significant decline in burden Ratio, post BPR implementation.

H5-4e There is significant improvement in Interest Income to Total Income/Net Margin Ratio post BPR implementation

H5-5 There is significant improvement in Liquidity Position, Post BPR implementation.

H5-5a There is significant improvement in Cash Deposit Ratio Post BPR implementation.

H5-5b There is significant improvement in Liquid Assets to Total Assets Ratio Post BPR implementation.

H5-6 There is significant decline in transaction cost Post BPR implementation.

5.2 FINANCIAL PERFORMANCE OF THE BANK

CAMEL model to analyze financial performance was first introduced by U.S. authorities in 1980 **(Gupta, 2014)**. Five dimensions which are being analyzed in CAMEL Model to judge the financial soundness are Capital, Asset Quality, Management Efficiency, Earnings and Liquidity. Asset Quality is used as an indicator to judge the risk for financial institutions, which further helps in judging the reliability of Capital Ratios **(Kwan and Eisenbeis, 1997)**. **Chaudhry and Singh (2012)** analyzed

how asset quality impacts the financial efficiency and strength of the bank. The major players in keeping soundness of bank are risk management, the status of NPAs, cost management capabilities and bank's penetration into market.

Sarker, (2005) made the usage of CAMEL model on Islamic banks to judge their financial wellbeing in Bangladesh. The Study was useful for banking regulators and supervisors to understand and judge a Shariah benchmark to administer and examine Islamic banks and other financial institutions from the point of view of Islam. Other operational indicators like various factors affecting service quality are also important for better performance of financial institutions. **Prasuna (2003)** used this model to analyze 65 Indian banks. The study concluded that better service quality, customers' satisfaction and strong negotiations help in bringing operational efficiency in bank. **Siva and Natarajan (2011)** also tested from 2003-07, the applicability of CAMEL approach. While studying SBI banks, they proved that ratios have huge impact on performance of banks. Position of assets, revenue, investments, and customers' satisfaction improve bank's operational productivity.

To improve relationship among many factors that are related to bank performance such as assets, revenue, profit, market value, number of employees, investments, and customer satisfaction can assist in improving bank's productivity. **Gupta and Kaur (2008)** made an attempt from 2003-07 to assess the performance of 20 old and 10 new Indian Private Sector Banks using Camel Model for five years. They concluded that higher capital leads to higher efficiency in the business.

CAMEL model uses parameters like Capital Adequacy, Asset Quality, Management Capability, Earnings Capacity and Liquidity. Table 5.1 lists the CAMEL parameters:

Table 5.1: CAMEL Model Parameters

Capital Adequacy	Capital Adequacy Ratio
Asset Quality	Net NPAs as percentage of Net Advances
	Priority Sector Advances as a percent of Total Advances
Management Efficiency	Deposit Per Employee
	Credit Per Employee
	Business Per Employee
	Profit Per Employee
Earnings Efficiency	Return on Assets
	Return on Equity
	Spread Ratio
	Burden Ratio
	Net Interest Margin
	Net Profit as a Percentage of Total Revenue
Liquidity	Cash Deposit Ratio
	Government Securities To Total Assets

5.2.1 Capital Adequacy Ratio (CAR) also known as Capital to Risk Assets (CRAR) Ratio is the relationship between bank's capital to its risk. It measures capital absorbed in bank. The right standard of ratio is an indication of financial stability of bank. This ratio safeguards the interests of the depositors.

$$CAR = \frac{\text{Tier One Capital} + \text{Tier Two Capital}}{\text{Risk Weighted Assets}}$$

The reason why minimum capital adequacy ratios are required is to provide enough refuge to absorb financial losses. Capital adequacy ratios guarantee the efficiency of banks. The incident of bank becoming insolvent is big jolt for any economy and it weakens the confidence of outer world and investors on the entire financial market system. At the time of winding up, strong capital adequacy ratios protects investors' savings as bank's customers may lose their financial assets in case of bank loosing even more than its capital.

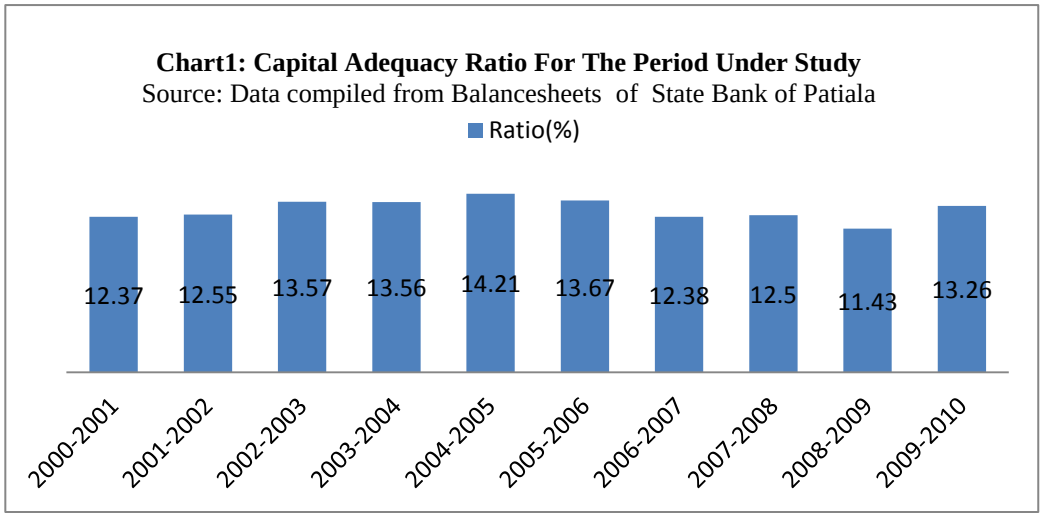
Chart 1 given shows the status of capital adequacy ratio in the bank, which shows no major change as such in this ratio. There is little variation both in pre and post BPR implementation. As per Basel norms, 9% of capital adequacy requirement was to be met by bank and the bank was able to meet this norm.

Table 5.2: Status of Capital Adequacy Ratio Pre and Post BPR Implementation

Capital Adequacy Ratio	**Pre BPR Implementation**			**Post BPR Implementation**			**P value**
	Standard Deviation	**Mean(%)**	**C.V.**	**Standard Deviation**	**Mean(%)**	**C.V.**	
Capital Adequacy Ratio	0.772	13.3	0.05	0.60	12.6	0.04	0.000

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank



Mean Capital Adequacy Ratio has declined from 13.3% to 12.6% but of course, it is meeting the norm prescribed by RBI regarding Capital Adequacy in the light of BASEL (The Basel Committee on Banking Supervision (BCBS)) norms. Test of difference shows the value significant, means p value <.05, therefore, it suggests to reject the hypothesis that there is significant improvement Capital Adequacy post BPR implementation. But it is still acceptable because it is meeting even above the standard required of Capital adequacy i.e. 9% higher level of capital adequacy increases liquidity of bank and squeeze the possibility of bank failure. On the other side bankers normally favor to operate with lower level of capital adequacy. The smaller equity base, the greater will be the financial leverage and equity multiplier, which will convert a normal return on assets into a high return on equity **(Koch and Macdonald, 2010).**

5.2.2 Asset Quality of Bank

Asset quality is one of the most strategic areas in banking to be taken care of. Asset quality implies the status of lending and policy regarding credit risk management of bank. Bank's assets typically comprises of loans and advances. Weak credit risk management policy of bank carry the greatest amount of risk to their capital, which may even lead to serious loss to bank in case of Non performing Assets (NPAs). NPAs have become acute problem of Indian banks. Securities may also comprise a large portion of the assets and also control major risks. Fixed Assets, off-balance sheet items and other assets also influence quality of assets. Credit rating of bank and its financial instruments

also depend on effectiveness of management control in controlling and monitoring credit risk which influences asset quality of bank.

5.2.2.1 Net NPAs as percentage of Advances

This ratio helps in managing credit risk of bank. The ratio of Net NPAs to Net Advances is a tool to gauge the quality of assets. Lower the Ratio higher will be Net NPA level, the better is the quality of the assets of the bank. We understand that higher NPAs may lead to higher risk to depositors and even NPA's may grind down their deposits in case of losses. Therefore, bad losses are required to manage. Chart 3 shows the status of net NPAs to advances ratio for pre and post BPR period.

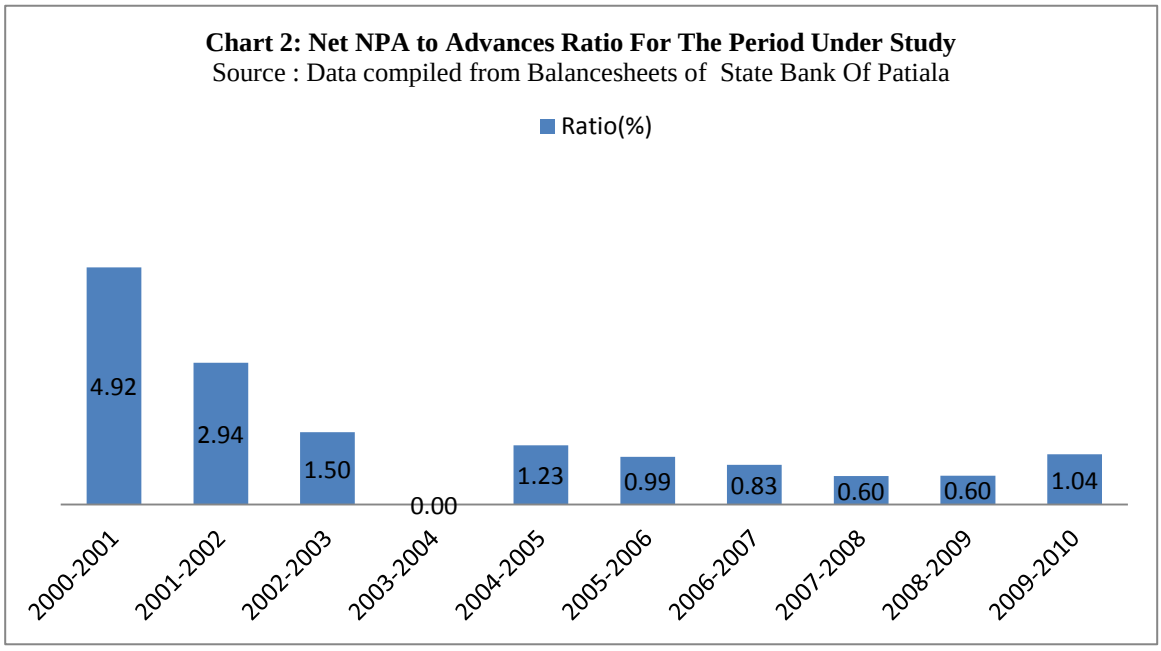


Table 5.3: Status of Net NPAs to Advances Ratio Pre and Post BPR Implementation

Asset Quality Ratio	Pre BPR Implementation			Post BPR Implementation			P value
	Standard Deviation	Mean	C.V.	Standard Deviation	Mean	C.V	0.098
Net NPAs To Advances Ratio	1.88	2.11	0.88	1.06	0.8	1.30	

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Chart 2 highlights the Net NPAs to Advances Ratio in pre-BPR and post-BPR period. It is clear from the above given chart that this ratio is showing declining trend, which is considered good in financial analysis. As shown in table 5.3, in pre-BPR period, average ratio NPAs to advances ratio is 2.11, which declined to 1.30% in post BPR period. Decline in this ratio is an indication of bank's effective management of NPAs.

T-test shows that there is no significant difference, as p value is >.005. Hence, the hypothesis is accepted. It seems bank has recovered all its NPAs in year 2003-2004. **Baral (2005) and Rajender (2009)** suggested that credit risk in the form of NPAs is one of the decisive factors that have an impact on the economic wellbeing of a bank and growing NPAs is a challenge to banks.

5.2.2.2 Priority Sector Advances as a percentage of Total Advances

Reserve Bank of India has given task to banks to provide lending to priority sector. Priority Sector refers to those sectors of the economy which have not got timely and adequate credit in the absence of this special privilege given by RBI as these sectors are very important for the growth of economy and society. The sectors like micro and small enterprises, housing for economic weaker sections, education loans for students and other low income groups come under this category. 'Priority Sector' reference came into existence in India in year 1972 when retail trade, small business, professional and self employed persons and education loans were also declared as priority sector in addition to Small Scale Industries, agriculture and allied agricultural activities and transport operators **(The Economic Times, 2011)**.

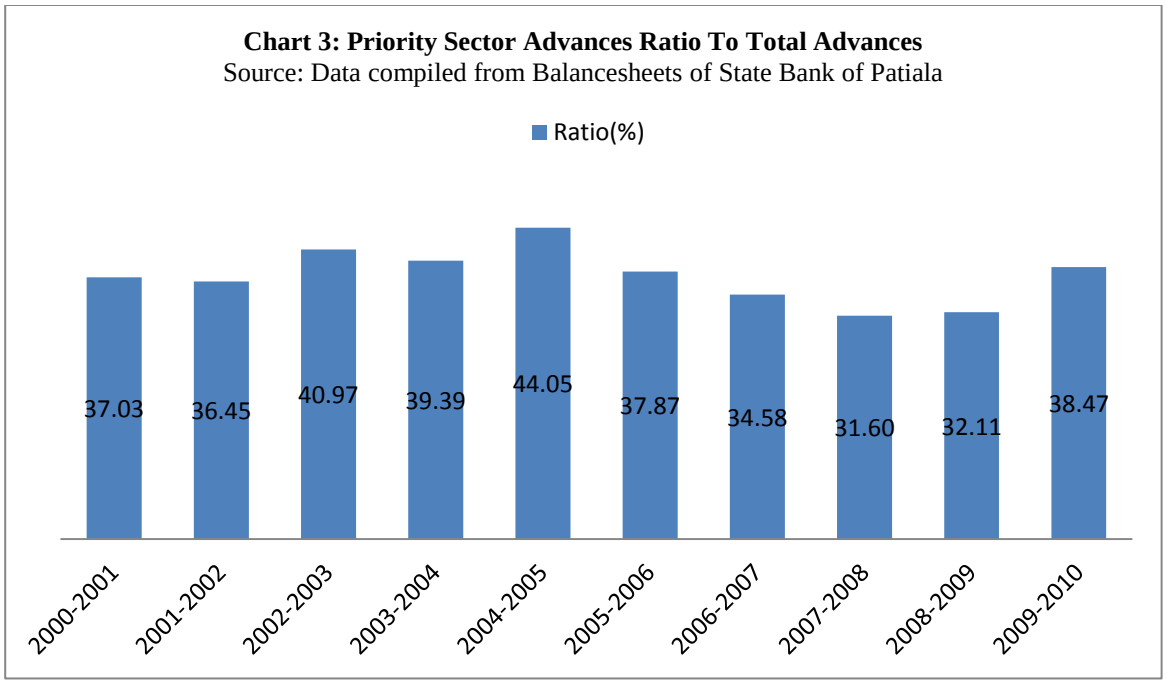


Chart 3: Priority Sector Advances Ratio To Total Advances
Source: Data compiled from Balancesheets of State Bank of Patiala

Table 5.4: Status of Priority Sector Advances to Total Advances Ratio Pre and Post BPR Implementation

Asset Quality Ratio	**Pre BPR Implementation**			**Post BPR Implementation**			**P value***
	Standard Deviation	**Mean**	**C.V.**	**Standard Deviation**	**Mean**	**C.V.**	
Priority Sector Advances To Total Advances Ratio	3.09	39.6	0.0782	2.93	34.9	0.084	0.023

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Chart 3 apparently shows the percentage of ratio above prescribed standard by RBI of priority sector lending that is 40% before BPR implementation which is low in post BPR period. Of course advances are declining in this period. This has even led to decline in NPA's in this period. Deviation is more in case of Pre BPR period in comparison to post BPR period. Average ratio is 39.6% against 34.9% in post BPR

period. P value is significant, therefore, Overall Asset quality has not improved post BPR period and we reject null hypothesis H6-3 i.e. there is significant improvement in Asset Quality, post BPR implementation.

5.2.3 Management Efficiency of Bank

The efficiency signifies a level of performance that brings higher productivity by putting less effort, time and cost. Productivity can be as how well a system uses its resources to achieve a goal. Efficiency can be measured by determining the ratio of useful output to total input. It is must for the bank that employees work efficiently. Efficient employees and managers complete tasks in the least amount of time possible with the least amount of resources possible by utilizing certain time-saving strategies. Generally in banks, efficiency means employees productivity, which can be measured with the parameters given in Table 5.1.

5.2.3.1 Deposit per Employee

This ratio is basically a proportion of total deposits and number of employees of bank during particular financial period. This ratio signifies the deposit mobilization by bank's employees as deposits of customers are blood for bank and without these deposits no bank can survive. Chart 4 given below highlights deposit per employee during study period.

$$\text{Deposit Per Employee(DPE)} = \frac{\text{Deposits}}{\text{Advances}} \times 100$$

Chart 4: Deposit Per Employee
Source: Data compiled from Balancesheets of State Bank of Patiala

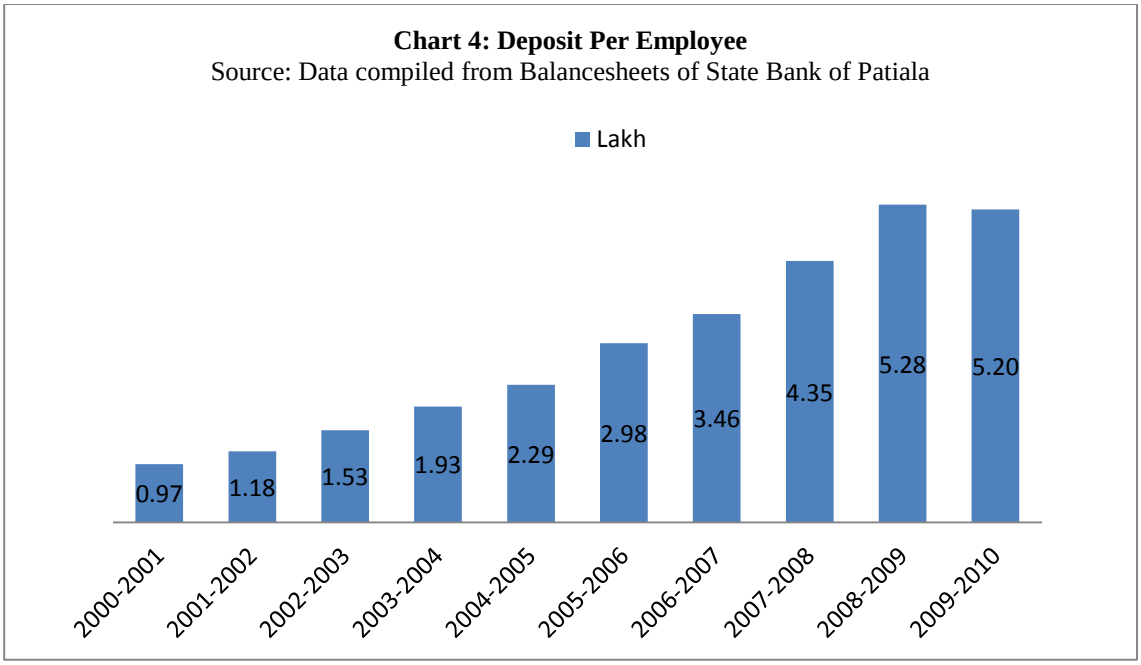


Table 5.5: Status of Deposit Per Employee Pre and Post BPR Implementation

Management Efficiency Ratio	**Pre BPR Implementation**			**Post BPR Implementation**			**P value***
	Standard Deviation	**Mean(Cr.)**	**C.V.**	**Standard Deviation**	**Mean(Cr.)**	**C.V.**	
Deposit Per Employee	0.54	0.78	1.17	0.695	0.96	1.03	1.95

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

From the above table, it is noticeable that average mean deposit per employee is less in pre BPR era, which increased after year 2005.This increase, signifies that deposit per employee is more in this period. It shows better efficiency on the part of banks' employees, though standard deviation and coefficient of variation is higher in post BPR era. Value of p is >.05, which shows data is statistically not significant. Therefore, we accept the H5-3a that there is significant improvement in Deposit Per Employee, Post BPR implementation.

5.2.3.2 Credit per Employee

This ratio reveals interpersonal skills of employees of bank. Employees of bank are required to bring business in form of advances to borrowers as interest earnings are one of the major source of income of bank. Therefore, higher credit ratio implies that employees have good personal links and art of social networking which is bringing business to them. Advances bring productivity only if these are allocated for productive purposes. The formula for this ratio is as follows:

$$\text{Credit Per Employee(CPE)} = \frac{\text{Advances}}{\text{Number of Employees}} \times 100$$

Chart5: Credit per Employee For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

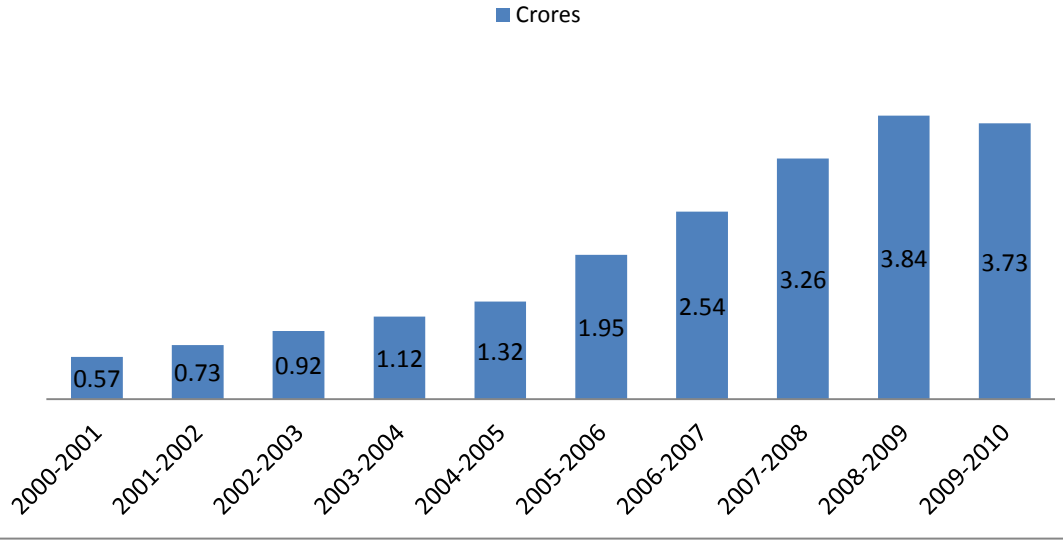


Table 5.6: Status of Credit Per Employee Pre and Post BPR Implementation

Management Efficiency Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(Cr.)	C.V.	Standard Deviation	Mean(Cr.)	C.V.	
Deposit Per Employee	0.54	0.78	1.17	0.695	0.96	1.03	1.95

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Chart 5 gives a clear idea about increase in credit per employee. We understand because of market competition and to increase shareholders value, it is necessary to increase advances reasonably but these advances have to be managed to protect from losses incurred by NPAs. Table 5.6 clearly shows increase in Credit Per Employee which is considered satisfactory to judge efficiency of banks' employees. Table 5.6 depicts mean credit per employee is 0.78 crores, which increased to 0.96 crores in post BPR period. P value is also greater than 0.05, therefore, we accept H5-3b that there is significant improvement in Credit Per Employee, post BPR implementation.

5.2.3.3 Business per Employee

Business/Revenue per employee is a tool to appraise how efficiently a particular company is utilizing its employees. High income is a sign of efficient employees force and signal of efficiency of top management of getting work done from subordinates. This ratio is a proportion of Income or business of bank in a year to number of employees. Formula of this ratio is:

$$\text{Business Per Employee(BPE)} = \frac{\text{Business}}{\text{Number of Employees}} \times 100$$

Chart 6: Business per Employee For The Period Under Study

Source: Data compiled from Balancesheets of State Bank of Patiala

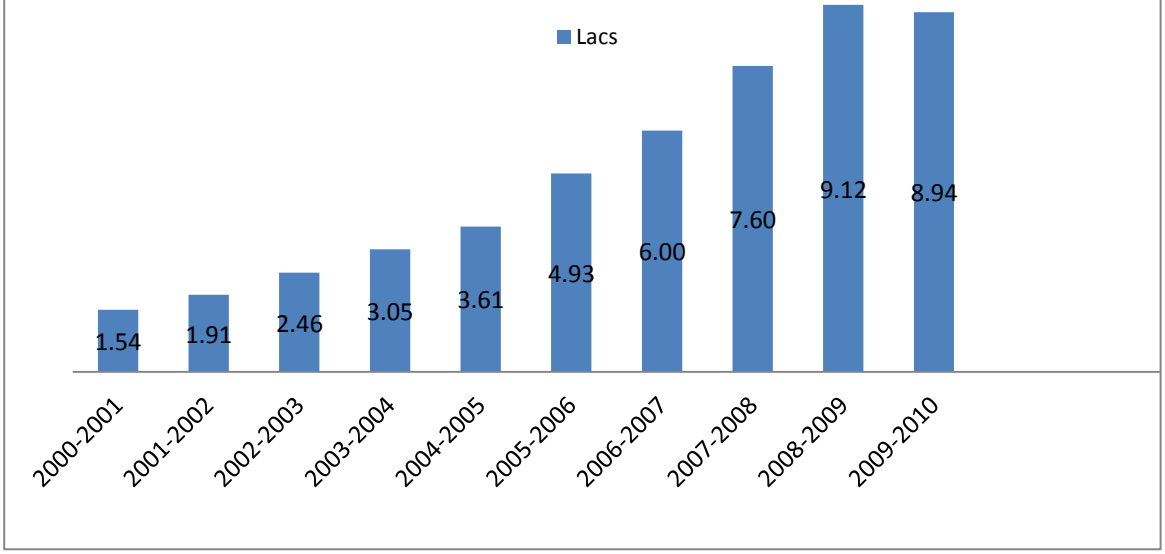


Table 5.7: Status of Business Per Employee Pre and Post BPR Implementation

Management Efficiency Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(Lacs)	C.V.	Standard Deviation	Mean(Lacs)	C.V.	
Business Per Employee	0.84	2.51	0.33	1.16	7.32	1.03	0.00

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Analysis of the table 5.7 clearly conveys lot of variation in Business Per Employee Post BPR era though average mean ratio of Business Per Employee has increased to 7.32 lacs in second part of study that is from 2005-2010. Chart 6 clearly showing the upward trend of this ratio. On one hand it is good in terms of productivity of employees on other hand it also indicates the burden and stress on employees to increase business of bank. P

value <.05 means data is statistically significant and strong evidence against hypothesis H5-3c that there is significant improvement in business per employee.

5.2.3.4 Profit Per Employee

This ratio is also hypothesized to increase over a period of time because increase in profit per employee is pertinent for the survival of business. Profit here means profits after meeting bank's operating expenses. The life span of bank also influences Revenue per Employee. At the initial stages, organizations have small revenues and they are in the process of filling important positions. Therefore, their revenue per employee is lower than the established companies. Profit per Employee is calculated as follows:

$$\text{Profit Per Employee(PPE)} = \frac{\text{Net Profits}}{\text{Number of Employees}} \times 100$$

Chart 7: Profit Per Employee For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

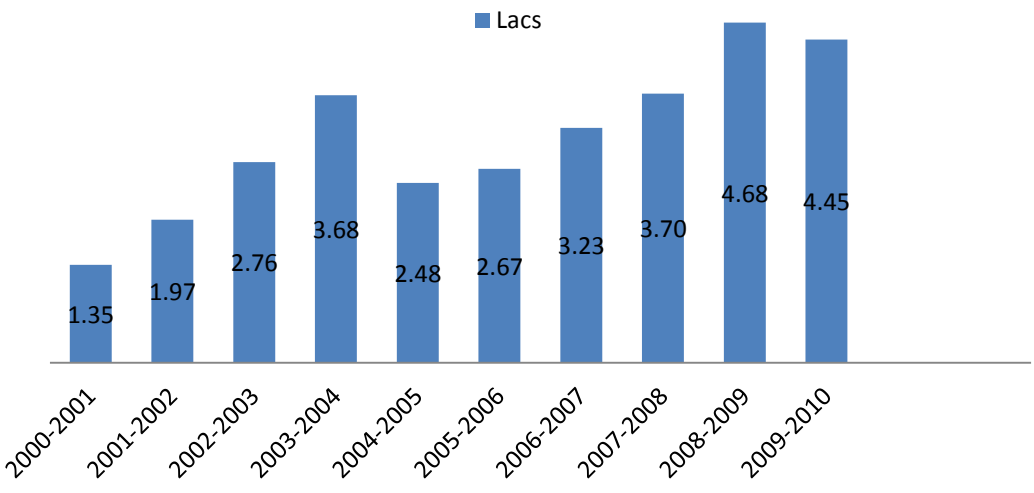


Table 5.8: Status of Profit Per Employee Pre and Post BPR Implementation

Type of Management Efficiency Ratio	Pre BPR Incorporation			Post BPR Incorporation			P value*
	Standard Deviation	Mean(Lacs)	C.V.	Standard Deviation	Mean(Lacs)	C.V.	
Profit Per Employee	0.88	2.45	0.36	0.36	3.75	0.17	0.02

Significance level: = p < 0.05
Source: Data Computed From Annual Reports of Bank

Analysis of the table 5.8 clearly conveys rise in profits during study period. Rather less variation in profits in Post BPR era. Mean Profit Per Employee has also increased to 3.75 lacs from 2005-2010. Chart 7 clearly showing the upward trend of this ratio. P value <.05 means data is statistically significant and strong evidence against hypothesis H5-3d that there is significant improvement in profit per employee. The role of profit is well known because it is definite that it is able to create a shelter against unexpected losses. Also, psychological effect of profits has to be taken into consideration, because the existence or missing of the profit affects the public and shareholders confidence in the banks **(Nistor et al., 2010)**.

5.2.4 Earning Quality

Consistent earning of bank is must for the survival of any banking organization. It does not only safeguard the customers but increases market value of shares which strengthens shareholders value further. Earning capacity is required to increase continuously **(Trivedi R. Krupa 2015).** These ratios determine the ability of a bank's earning. Following table 5.1shows the list of ratios computed for the same.

5.2.4.1 Return on Assets

Return on Assets (ROA) is the traditional measure of the profitability of any business. However, not all assets can be used to earn income, because banks must have cash to satisfy cash withdrawal requests of customers but still it is considered quite reliable measure of judging profitability of the bank. Following Chart shows the trend of this ratio during study period. Return on Assets is computed with following formula:

$$\text{Return on Assets(ROA)} = \frac{\text{Earnings}}{\text{Total Assets}} \times 100$$

Chart 8: Return On Assets For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

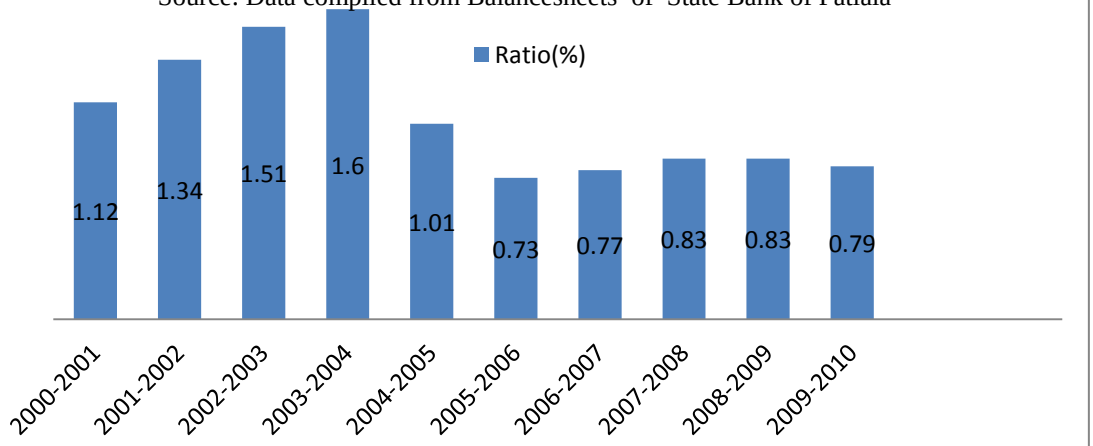


Table 5.9: Status of Return on Assets Pre and Post BPR Implementation

Earning Ratio	Pre BPR Implementation			Post BPR Implementation		P value*	
	Standard Deviation	Mean(Cr.)	C.V.	Standard Deviation	Mean(Cr.)	C.V.	
Return on Assets	0.88	1.32	0.19	0.36	0.79	0.46	0.00

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Return on Assets is important indication of bank's profitability which is showing quite volatile and declining trend as shown in Chart 8. Return on Assets had higher mean ratio in pre BPR period as shown in Chart 8. This clearly shows that BPR is not able to bring rosy picture as far as return on assets are concerned. Coefficient of variation is also more in post BPR period. P value is significant, therefore, we reject hypothesis, H5-4a that there is significant improvement in Return on Assets, Post BPR implementation.

5.2.4.2 Return on Equity

This ratio is a profitability ratio for the understanding and analysis of bank's profitability from the point of view of shareholders. Of course, this ratio is of the interest of shareholders but it speaks more about bank's financial picture. This ratio brings an idea how efficiently a firm can use the money from shareholders to generate profits. It means clearly this ratio indicates how much shareholders investment in business is able to bring profits. Therefore, higher the ratio, better it is for the shareholders. This ratio is calculated as follows:

$$\text{Return on Equity(ROE)} = \frac{\text{Net Income}}{\text{Shareholders Equity}} \times 100$$

Chart 9: Return on Equity For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

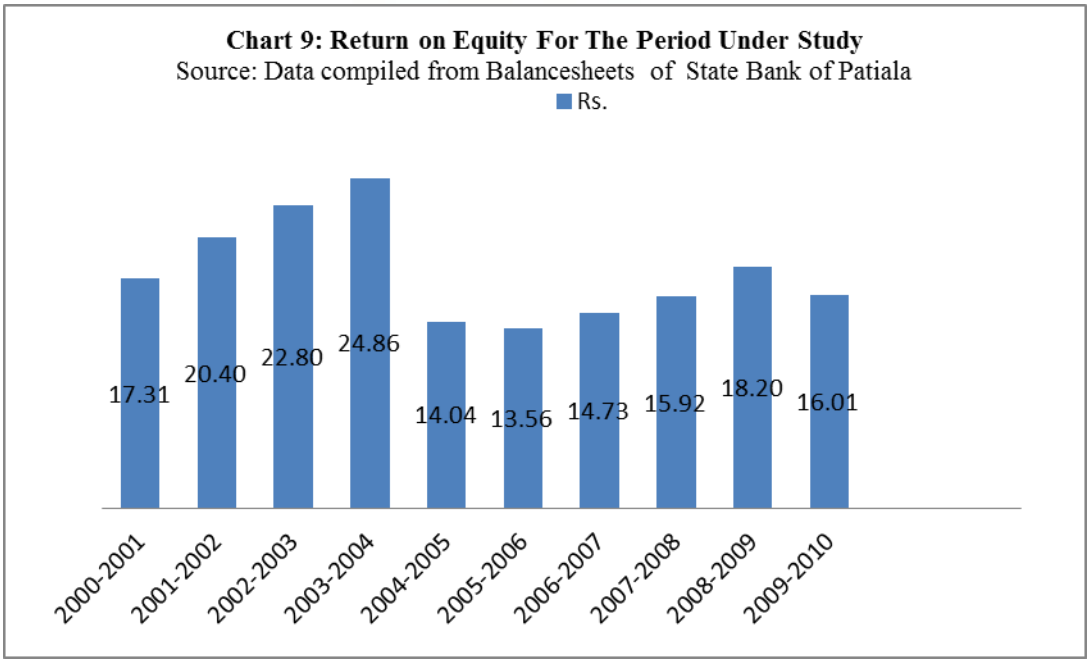


Table 5.10: Status of Return on Equity Pre and Post BPR Implementation

Earnings Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(%)	C.V.	Standard Deviation	Mean(%)	C.V.	
Return on Equity	4.31	19.88	0.22	5.12	15.68	0.33	0.05

Significance level: = p < 0.05,

Source: Data Computed From Annual Reports of Bank

Above table 5.10 clearly signifies Return on Equity position, which is not satisfactory during study period especially in post BPR period. This ratio remained quite low after year 2005. Mean ratio in this period is only Rs. 15.68, which is lesser than the mean value in pre BPR era. Standard deviation is also higher in this period. Data is statistically significant as p value is equal to .05. Therefore, we reject the hypothesis H5-4b that there is significant improvement in Return on Equity, post BPR implementation

5.2.4.3 Spread Ratio

Spread is the difference between interest income and interest expense. Excess of interest income over interest expense provides contribution towards bank's profits. Bank will have high spread if it has quality loans and investments and bank also raises funds at low cost. Following Chart 10 gives an idea about the Spread of bank. Formula for Spread Ratio is:

$$\text{Spread Ratio} = \frac{\text{Spread}}{\text{Working Funds}} \times 100$$

Chart 10 : Spread Ratio For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

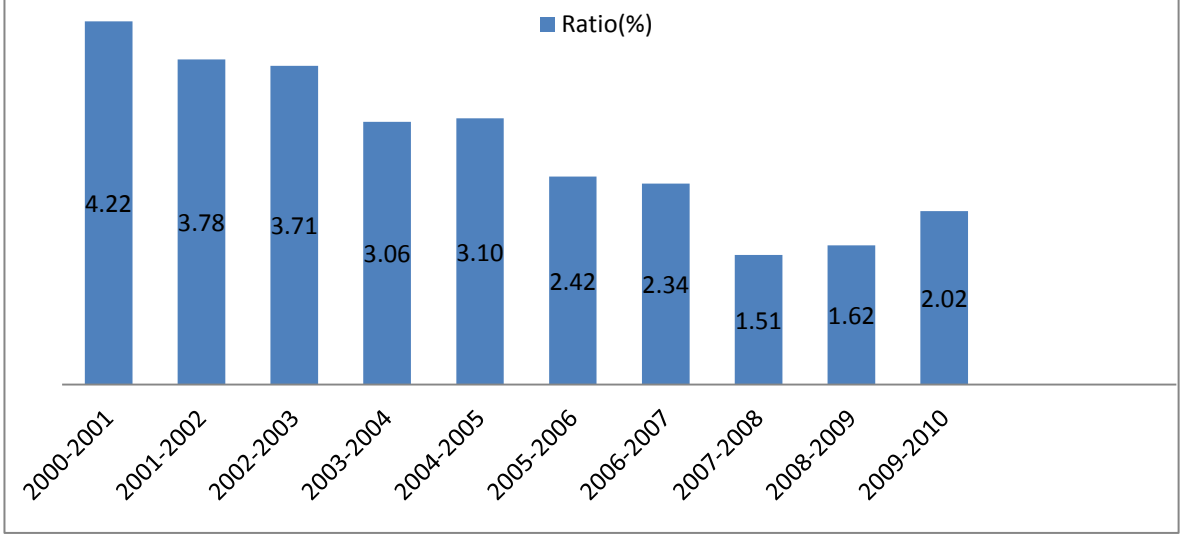


Table 5.11: Status of Spread Ratio Pre and Post BPR Implementation

Earnings Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(%.)	C.V.	Standard Deviation	Mean(%)	C.V.	
Spread Ratio	0.49	3.57	0.14	0.56	1.98	0.28	0.00

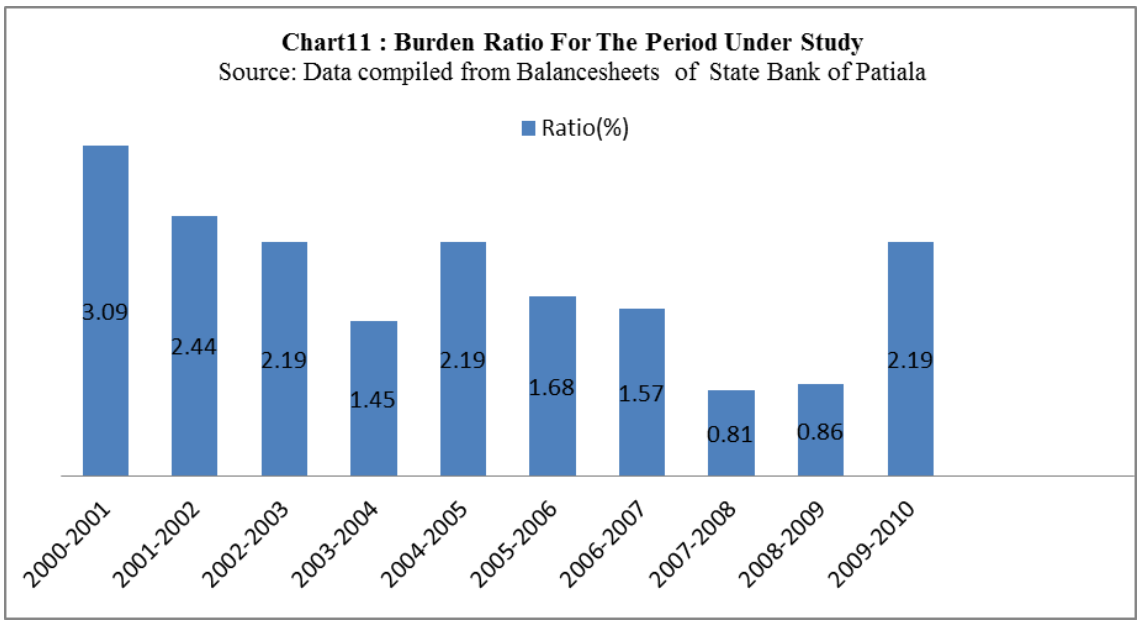
Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Position of Spread ratio is also bleak as post BPR mean ratio is 1.98 %, lower than pre BPR period, though standard deviation is remaining low in this period but overall this ratio remained volatile throughout study period. This indicates, bank is not able to create margin or spread. Indian banks are suffering huge because of banks high NPAs. P value signifies data is statistically significant, which gives hand to reject hypothesis H5-4c that there is significant improvement in Spread Ratio, post BPR implementation.

5.2.4.4 Burden as a percentage of Average Assets

Burden means interest charges paid by bank on amount borrowed by bank. Interest charges are burden on bank, which reduces bank's profitability. Therefore, bank should get loans at lower cost to have more spread in interest. Following Chart 11 gives an idea about this ratio.



Burden is basically difference between Non-interest operating Expenditure and Non-interest operating income. It is proportion of Burden to Average Total Assets. A bank with a low burden ratio is always considered good. An increasing trend indicates lack of burden bearing capacity of bank.

Table 5.12: Status of Burden Ratio Pre and Post BPR Implementation

Earnings Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(%.)	C.V.	Standard Deviation	Mean(%)	C.V.	
Burden Ratio	0.59	2.27	0.26	0.41	1.42	0.29	0.01

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

This ratio should decline over a period of time but it remained volatile during study period. Though mean ratio is lesser in post BPR period than pre BPR period, which is a good sign overall but still not that satisfactory because it started showing upward trend again from 2009. Variation is also more in post BPR period. Comparison of period and t test shows that data is statistically significant. So, analysis supports to reject the hypothesis H5-4d that there is significant decline in Burden Ratio, post BPR implementation.

5.2.4.5 Net Profit as a Percentage of Total Income

Net Profit as a percentage of total income is also referred as Net margin. It is able to explain how fast a bank converts revenues of company into profits. Higher ratio indicates better profitability. Formula for this ratio is given below:

$$\text{Net Profit as a Percentage of Total Income} = \frac{(\text{Total Revenue} - \text{Total Expenses})}{\text{Total Revenue}} \times 100$$

Chart 12 : Net Margin Ratio For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

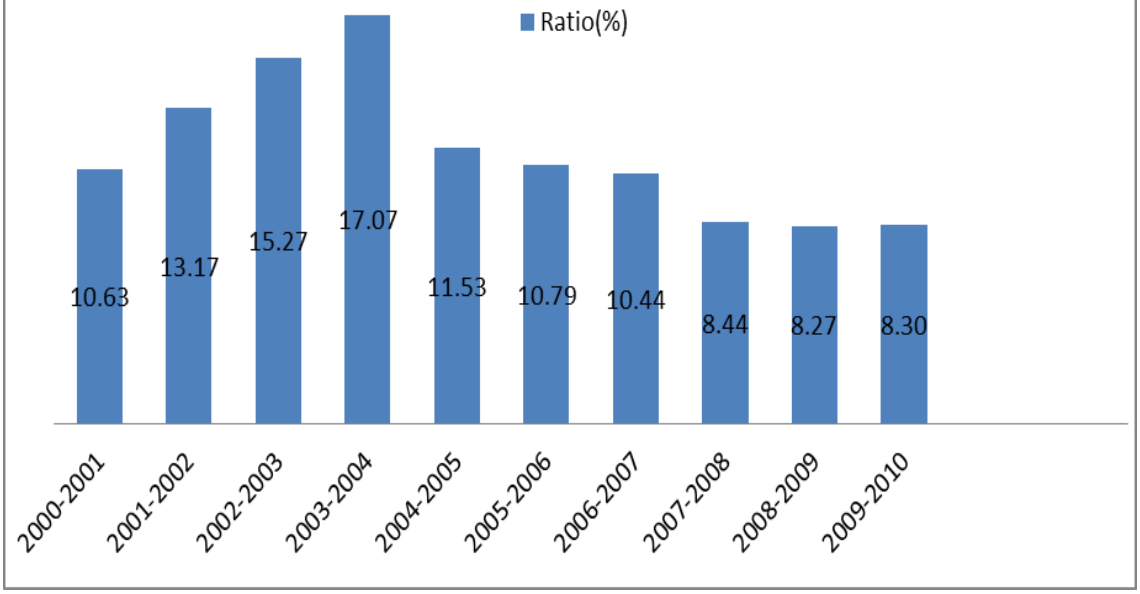


Table 5.13: Status of Net Profit Margin Ratio Pre and Post BPR Implementation

Earnings Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(%.)	C.V.	Standard Deviation	Mean(%)	C.V.	
Net Margin Ratio	2.65	13.53	0.20	2.61	9.25	0.28	0.01

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Above table 5.13 and Chart 12 again rejects the hypothesis H5-4e that there is significant improvement in Net margin Ratio, post BPR implementation. Pre BPR Mean ratio was 13.53%, which declined to 9.25% to post BPR period. Standard deviation remained high in both periods. p value shows that data is statistically significant. Therefore, we reject hypothesis that there is improvement in Net Profit Margin Ratio.

5.2.5 Liquidity Status of Bank

It is important that bank is able to maintain liquidity in bank. Proper balance is required to be maintained, as higher level of liquidity does not bring any business for bank. Idle cash does not bring any profit, on the contrary lesser cash is also dangerous as bank may have to meet depositors requirements any time. Therefore, it becomes necessary to analyze bank's liquidity position. For this purpose following ratios have been computed.

5.2.5.1 Cash Deposit Ratio

Cash Deposit ratio (CDR) is the ratio of how much a bank lends to outsiders from the funds it has mobilized from depositors. This Ratio, therefore, indicates two things i.e. how much of a bank's funds had been lent to borrowers and how much are available with bank itself. Formula for this ratio is:

Cash/Deposit Ratio (%) = Cash in hand + Balances with RBI/ Total deposits

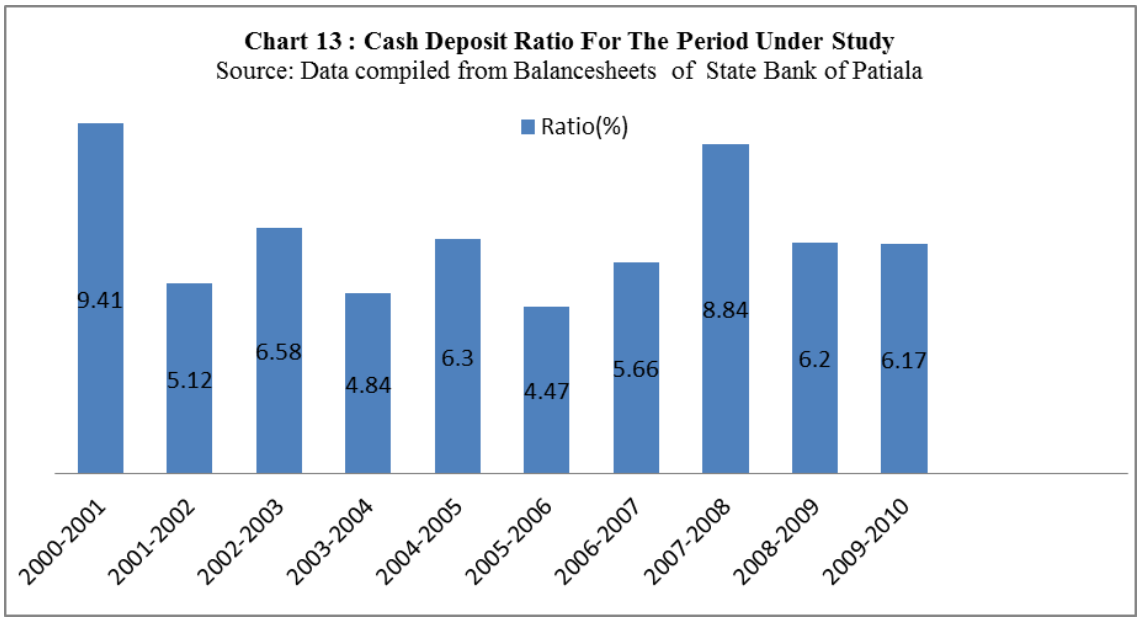


Table 5.14: Status Of Cash Deposit Ratio Pre and Post BPR Implementation

Liquidity Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(%.)	C.V.	Standard Deviation	Mean(%)	C.V.	
Cash Deposit Ratio	1.81	6.45	0.28	0.93	0.15	0.28	0.54

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

Above Chart 13 and table 5.14 clearly signifies volatility in this ratio. This ratio is inclusive of CRR kept with Reserve Bank as per RBI guidelines. According to RBI guidelines, this ratio remained high as 8.50% in year 2000 and reduced to 7% in 2001. From year 2007 to 2010 ranged between 4% to 7%. Further increased 8-8.5 % in year 2008 and remained between 5-6% in 2010. So, we can assess this volatility was due to RBI guidelines given time to time. Hence, bank was able to maintain overall stable position with regard to liquidity and was utilizing funds of bank for lending. P value is > .05 therefore; we accept the hypothesis H5-5a that there is significant improvement in Cash Deposit Ratio Post BPR implementation. Banks should not increase much liquidity as because these days due to plastic cards, Internet payments, and electronic funds transfer, and so on, are on the increase.

5.2.5.2 Liquid Assets to Total Assets

It is important for the bank to have liquidity as well as investment in liquid securities, otherwise liquidity totally in cash is idle. But still, bank is required to maintain liquidity to the extent that it can meet customers' demands whenever required. Chart 14 gives an idea about it.

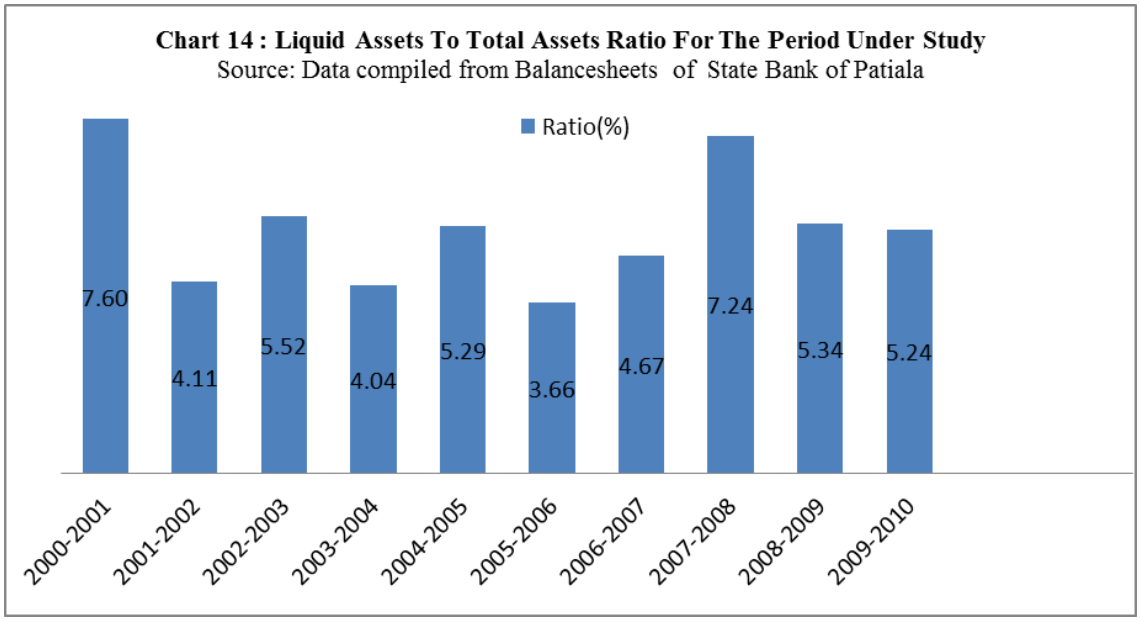


Table 5.15: Status of Liquid Assets Ratio Pre and Post BPR Implementation

Liquidity Ratio	Pre BPR Implementation			Post BPR Implementation			P value*
	Standard Deviation	Mean(%.)	C.V.	Standard Deviation	Mean(%)	C.V.	
Cash Deposit Ratio	1.44	5.31	0.27	0.93	5.23	0.16	0.56

Significance level: = p < 0.05,

Source: Data Computed From Annual Reports of Bank

From above table 5.15, we can assess that on an average in both periods of pre BPR and Post BPR, the ratio of Liquid Assets To Total Assets remained 5-6%, which is considered satisfactory. Coefficient of variation remained reasonable, therefore, we believe that this ratio is reasonably satisfactory according to standard prescribed by

financial analysts. p value also suggests and endorses to accept hypothesis H5-5b that there is significant improvement in Liquid Assets to Total Assets Ratio Post BPR implementation.

5.2.6 Transaction Cost

To analyse financial position after BPR, CAMEL model has been used. This model does indicate little about establishment expenses made by bank to check management efficiency of bank but it does not specifically stresses upon transaction costs. If bank is able to reduce its transaction cost, it is considered good and can bring more profitability; therefore, transaction cost has been computed and checked to see BPR impact.

As one of the objectives of BPR is to reduce cost, therefore, we tried to analyze the cost effectiveness in bank after incorporating BPR in organization. CAMEL model do not suggest to calculate this ratio, but this ratio is of our interest for analysis. For the purpose of calculating transaction cost, pre and post BPR has been analysed. Transaction cost has been calculated by dividing operating expenses to bank's total business (deposits and advances). Chart 15 highlights transaction cost during the period of study.

Chart 15:Transaction Cost to Total Business Ratio For The Period Under Study
Source: Data compiled from Balancesheets of State Bank of Patiala

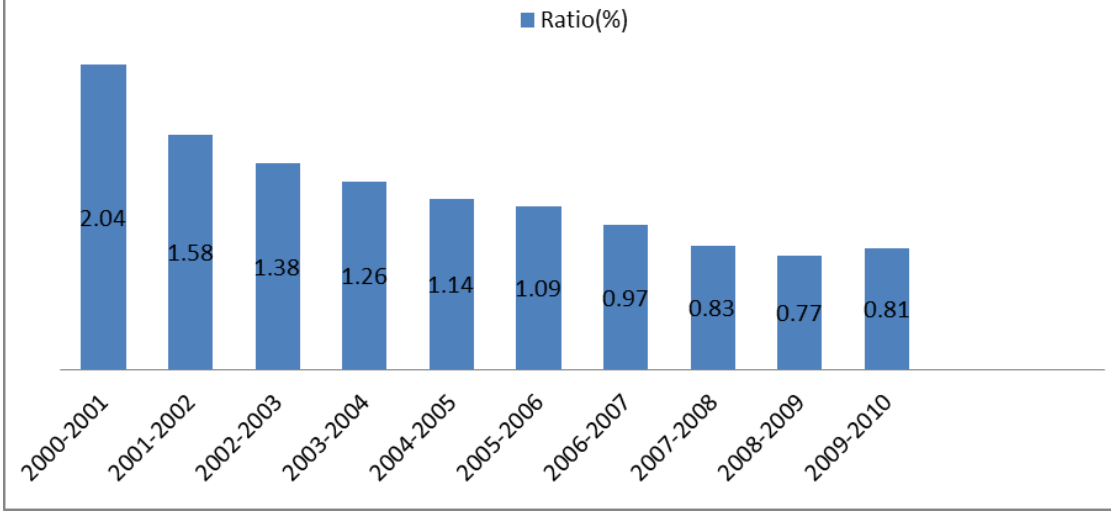


Table 5.16: Status of Transaction Cost Pre and Post BPR Implementation

Earnings Ratio	Pre BPR Implementation			Post BPR Implementation			Type of Earning Ratio
Transaction Cost Ratio	Standard Deviation	Mean (%.)		Standard Deviation	Mean(%.)		
	0.35	0.16	0.16	0.19	0.17	0.13	0.23

Significance level: = p < 0.05

Source: Data Computed From Annual Reports of Bank

From the above table it is evident that overall transaction cost has come down. It is a good sign of lesser establishment cost in organization. This could be because of bank has tried to control establishment expenses by controlling and changing business processes or by reducing number of employees, though business per branch has increased. It is clear indication that bank tries to cut down cost by reducing number of employees, which is not a healthy policy. Above table 5.16 clearly conveys transaction cost reduced post BPR period. Insignificant value of p indicates that transaction cost reduced over a period of time and hypothesis H5-6 that there is significant decline in transaction cost post BPR implementation. H5-6 that there is significant decline in transaction cost post BPR implementation has been accepted.

Overall, we can conclude that in spite of bank's improved asset quality, liquidity position and management efficiency, bank is not able to increase its earnings.

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