Performance Evaluation of Public Sector Banks in India

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Abstract: *The study attempts to examine the* ***Performance Evaluation of Public Sector Banks in India.*** *The Punjab National Bank has been selected for the same. The PNB has business in two segments, i.e. financial and internal business process. The study is based on secondary data from 2007-08 to 2016-17. The results reveal that the financial position of the bank is satisfactory in term of capital adequacy and credit deposits ratio. The cost to income and business per employee ratio are efficient with regard to internal business process. The financial and internal business process ratios are positively correlated. It proves that with increase in the financial position, internal business process performance will increase. The't' value is insignificant at 95 percent level of confidence. The study focused on holistic measures for measuring the performance of the bank. At present, the performance is not appreciable. This has happened due to slowdown in the economy. The study may be useful to bank's managers, savers, users and government, etc. in planning the financing and non-financing decisions.*

Keywords: *CAR, CDR, NIM, NNPAR, CIR, PPE, BPE, AGR and AAGR*

Introduction

The banking sector acts as a backbone of economic development. It plays a vital role in the success / failure of an economy. The banking system is the fuel injection system which spurs economic efficiency. The countries with a well-developed banking system grow faster than those with a weaker one. A sound banking system efficiently mobilizes savings in productive sectors and a solvent banking system ensures that the bank is capable of meeting its obligations to the depositors. Thus, economic development is not possible without a sound financial system. Structurally, the Indian banking system has gained strength after nationalization. The policies and working of banks have been brought into closer harmony and coordinated with the national policy of economic development.

The banks have reached out to the masses in every nook and corner of the country. Special efforts have been made to take the banking facilities to the doorsteps of the people and to extend credit to neglected sectors. Thus, the success of any organization depends on the team work which can bring in sustained results.

The banks have been searching for new and innovative tools to improve their bottom lines. The banking sector in India, especially the public sector banks, are facing major threats in the form of assets quality, capital adequacy, technology and competition from private sector competitors. Recently, the entry of many new players who have received banking licenses from RBI, the competitive challenge is set to increase dramatically. Thus, the banking sector is seen as growth driver of the economy.

Objectives of the Study

- To find out the financial performance evaluation of the Punjab National Bank
- To diagnose the internal business process of the bank
- To examine the relationship in terms of financial and internal business process perspectives of the bank

Scope of the Study

Keeping in view the objectives of study, it has been decided to choose the Punjab National Bank on purposive sampling basis. The period of the study is ten years from 2007-08 to 2016-17. The study attempts to examine performance evaluation of the bank in two segments, i.e. financial and internal business process.

Methodology

The study is based on secondary data. The data have been taken from published annual reports and statistical tables of the bank (PNB) during 2007-08 to 2016-17. The collected data have been analyzed through the use of various accounting and statistical techniques such as ratios, percentage, mean, co-efficient of variation, annual growth rate (AGR), average annual growth rate (AAGR), correlation (r) and't' test.

Analysis of financial and internal business process of the Punjab National Bank

In order to judge the financial and internal business process performance evaluation of the bank (PNB), the following ratios have been used.

	Sl. No.	Measures	Formula
Financial Performance	1.	Capital Adequacy Ratio (CAR)	[Tier I+ Tier II+ Tier III (capital funds)/Risk weighted Assts]*100
	2.	Credit Deposits Ratio (CDR)	[Total Advances/ Total Deposits]*100
	3.	Net Interest Margin Ratio(NIM)	[Net Interest Income/ Average Earning Assets]*100
	4.	Net Non-Performing Assets Ratio (NNPAR)	[Net Non- Performing Assets/ Loan Given]*100
Internal Business process Performance	5.	Cost to income Ratio (CIR)	[Operating Expenses/NII + Non Interest Income]*100
	6.	Profit Per Employee Ratio (PPE)	[Net Profit/ No. of Employees]
	7.	Business Per Employee (BPE)	[Total Business / No. of Employees]

Analysis and Discussion

The data analyzed have been presented in different tables (eight in number), reflecting upon the various objectives of the study.

Objective 1

Performance evaluation analysis in respect to financial segment of bank has been shown in table number (1 to 4)

Table1: Analysis of Capital Adequacy Ratio (CAR)

Year	CAR (%)	A.GR
2007-08	12.96	
2008-09	14.03	8.26
2009-10	14.16	0.93
2010-11	12.42	-12.29
2011-12	12.63	1.69
2012-13	12.72	0.71
2013-14	11.52	-9.43
2014-15	12.21	5.99
2015-16	12.28	0.57
2016-17	11.66	-5.05
Mean	12.66	
C.V.	.07	
AAGR	-0.96	

Source: Compiled from Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No. 1 shows the capital adequacy ratio of PNB for a period of ten years. Capital adequacy ratio reflects the overall financial status of the bank. The ideal capital adequacy ratio as prescribed in BASEL III norms is 10.5 percent. The mean value of CAR is recorded to be 12.66 percent. It proves that CAR is more than BASEL norms. It is a positive signal for the bank. The C.V. value .07 shows that there is slight variation in the growth of CAR. It can be inferred that capital adequacy ratio is quite satisfactory. The bank should maintain this position and further try to enhance its capital adequacy ratio to the prescribed level. It indicates the bank's ability to defend itself from risk against losses, both expected and unforeseen.

Table 2: Analysis of Credit Deposits Ratio (CDR)

Year	CDR (%)	A.GR
2007-08	71.79	
2008-09	73.75	2.73
2009-10	74.84	1.48
2010-11	77.38	3.39
2011-12	77.39	0.01
2012-13	78.86	1.89
2013-14	77.38	-1.88
2014-15	75.90	-1.91
2015-16	74.55	-1.78
2016-17	67.47	-9.50
Mean	74.93	
C.V.	0.15	
AAGR	-0.62	

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No. 2 represents the total advances to total deposits ratio of the bank for a period of ten years. This ratio determines the productivity of the assets of the bank. It witnesses how far the assets of a bank have been utilized to provide advances to its customers. The mean value is recorded to be 74.93 percent with C.V. value .15. The C.V. value .15 proves that low variation in the growth of credit deposits ratio. This ratio witnesses a rising trend from 2007-08 to 2012-13, thereafter showing declining trend till 2016-17. The average annual growth rate is slightly negative (i.e. -0.62). It can be said that higher ratio indicates an effective utilization of the assets and lower ratio reflects a low productivity of the assets of bank. Hence, assets of the bank (advances) were utilized properly and the bank should try to invest in fruitful securities that generate more returns.

Table 3: Analysis of Net Interest Margin Ratio (NIM)

Year	NIM (%)	A.G.R
2007-08	3.58	
2008-09	3.52	-1.68
2009-10	3.57	1.42
2010-11	3.96	10.92
2011-12	3.84	-3.03
2012-13	3.52	-8.33
2013-14	3.44	-2.27
2014-15	3.15	-8.43
2015-16	2.60	-17.46
2016-17	2.38	-8.46
Mean	3.35	
C.V.	.08	
AAGR	-4.15	

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No.3 highlights the net interest margin ratio of the bank over the ten-year period of the study. The ratio measures the difference between the interest income generated by the bank and the amount of interest paid to their lenders. The mean value of net interest margin ratio is noticed to be 3.35 percent with C.V. value of .08. The C.V. value .08 is nominal. It shows slight variation in the growth of NIM. The average annual growth rate shows a negative figure. It can be concluded that net interest generated out of inertest earning assets of the bank is comparatively low to the bank rate. Thus, bank should be maintained at least the bank rate and try to enhance its position to this level.

Table 4: Analysis of Net Non-Performing Assets Ratio (NNPAR)

Year	NNPAR (%)	A.G.R
2007-08	.64	
2008-09	.17	-73.44
2009-10	.53	211.76
2010-11	.85	60.38
2011-12	1.52	78.82
2012-13	2.35	54.60
2013-14	2.85	21.28
2014-15	4.06	42.46
2015-16	8.61	112.06
2016-17	7.81	-9.29
Mean	2.94	
C.V.	.98	
AAGR	55.40	

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No.4 depicts the net non-performing assets ratio of the bank over the ten years period of the study. The NPA level reflects the quality of the loan portfolio. The mean value is happened to be

2.94 percent with C.V. value .98. The C.V. value .98 proves sharp fluctuation in the growth of NNPAR. The average annual growth rate showed a positive figure. It shows the probability of large number of defaults which affects the profitability and liquidity of the bank. The bank should manage their $NNPA_s$ more efficiently and effectively. Therefore, a careful step is needed while distributing loans. The problem of NPA_s needs lots of serious efforts. Otherwise, NPA_s will keep killing the profitability of the bank. It is not good for growing Indian economy.

Objective 2

Performance evaluation analysis in respect to internal business process of the bank has been shown in table number 5 to 7.

Table 5: Analysis of Cost to Income Ratio (CIR)

Year	CIR (%)	AGR
2007-08	46.81	
2008-09	42.50	-9.21
2009-10	39.39	-7.32
2010-11	41.27	4.77
2011-12	39.75	-3.68
2012-13	42.81	7.70
2013-14	45.06	5.26
2014-15	46.74	3.73
2015-16	46.79	0.11
2016-17	41.57	-11.16
Mean	43.27	
C.V.	.06	
AAGR	-1.09	

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No. 5 portrays the cost to income ratio of PNB over the period of ten years study commencing from 2007-08 to 2016-17. The cost to income ratio measures how costs are changing compared to income. The lower ratio reflects the better position. The mean value is observed to be 43.27 percent with C.V. value .06. It means the ratio had an arithmetic mean of 43.27 percent of income. The average annual growth rate shows the negative figure. It is found that cost incurred to generate income by the bank was comparatively low. It proves that the bank is able to turn resources into revenue at low cost. Thus, this position should be improved by the bank in future years also.

Table 6: Analysis of Profit Per Employee (PPE)

Year	PPE	AGR
2007-08	.0365	
2008-09	.0531	45.48
2009-10	.0686	29.19
2010-11	.0777	13.27
2011-12	.0786	1.16
2012-13	.0750	-4.58
2013-14	.0510	-32.00
2014-15	.0448	-12.16
2015-16	-.0561	-225.22
2016-17	.0179	-131.91
Mean	.0447	
C.V.	.81	
AAGR	-35.20	

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No. 6 reveals the ratio of net profit to number of employees over ten years period of the study. It tends to rise in the initial years but its position from 2012-13 has been declining to reach a negative level in the year 2015-16. The mean value is noticed to be .0447 with C.V. value .81. It proves the high variation in profit per employee. The average annual growth rate showed a negative figure. It can be said that bank experienced low profit per employee. Therefore, bank should increase the proportion of skilled employees with set business target to increase profit per employee.

Table 7: Analysis of Business per Employee (BPE)

Year	BPE	AGR
2007-08	5.104	
2008-09	6.262	22.69
2009-10	7.658	22.29
2010-11	9.734	27.11
2011-12	10.838	11.34
2012-13	11.065	2.09
2013-14	12.216	10.40
2014-15	12.914	5.71
2015-16	13.635	5.58
2016-17	14.086	3.31
Mean	10.351	
C.V.	.28	
AAGR	12.28	

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No. 7 exhibits the ratio of total business to number of employees over the period of the study. This is the major ratio which focuses on the management efficiency of a bank. This ratio showed an increasing trend over the period of the study. The mean value is recorded to be 10.35 with C.V. value .28. The average annual growth rate shows a positive figure. It can be concluded that rising trend of BPE and positive figure of annual growth rate reflect the positive signal for the bank. This should be maintained in future years also.

Objective 3:

Relationship analysis between the ratio of financial and internal business process performance evaluation has been shown in Table No 8.

Table No. 8: Relationship analysis between financial and internal business process segments

Year	CAR Rank	CDR Rank	NIM Rank	NNPAR Rank	Total	Ultimate Rank(R_1)	CIR Rank	PPE Rank	BPE Rank	Total	Ultimate Rank (R_2)
2007-08	8	2	8	3	21.0	6	10	3	1	14	3.0
2008-09	9	3	5.5	1	18.5	2	5	6	2	13	2.0
2009-10	10	5	7	2	24.0	7	1	8	3	12	1.0
2010-11	5	7.5	10	4	26.5	8	3	9	4	16	4.5
2011-12	6	9	9	5	29.0	10	2	10	5	17	6.0
2012-13	7	10	5.5	6	28.5	9	6	7	6	21	10.0
2013-14	1	7.5	4	7	19.5	3	7	5	7	19	7.5
2014-15	3	6	3	8	20.0	4.5	8	4	8	20	9.0
2015-16	4	4	2	10	20.0	4.5	9	1	9	19	7.5
2016-17	2	1	1	9	13	1	4	2	10	16	4.5
R	.18										
't' Value	.52										

Source: Compiled Annual Reports of Punjab National Bank from 2007-08 to 2016-17

Table No. 8 shows the relationship between financial and internal business process segment over the ten years period of study. The ratios are ranked in order that reflect the position of the bank. The ultimate rank has been calculated from total ranks of the ratios. It appears that ratio of financial perspective and internal business process perspectives are positively correlated with 'r' value .18 in PNB. It proves that increase in the financial ratios, internal business process ratios will increase. The't' value .52 means correlation co-efficient is insignificant. It can be concluded that positive correlation between financial ratios and internal business process ratios point out the appropriate signal for the bank.

Findings and Suggestions

Capital Adequacy Ratio (CAR)

The mean value of capital adequacy ratio is recorded to be 12.66 percent with C.V. value .07. The ideal capital adequacy ratio as prescribed in BASEL-III norms is 10.5 percent. It proves that capital adequacy ratio is quite satisfactory. The bank should maintain this level and further try to enhance its capital adequacy ratio. This ratio witnesses the bank's ability to defend itself from risk against loss, both expected and unforeseen.

Credit Deposits Ratio (CDR)

The mean value of credit deposits ratio is found to be 74.93 percent with C.V. value .15. The average annual growth rate shows a negative figure, i.e. -.62. It means that assets of the bank (advances) have been utilized effectively and the bank should try to invest in fruitful securities that generate more returns. Thus, the higher ratio, i.e. 74.93 percent reflects the positive signal for the bank and the lower ratio is an alarming call upon the bank profitability.

Net Interest Margin Ratio (NIM)

The mean value was observed to be 3.35 percent with C.V. value .80. The average annual growth rate shows a negative figure which proves that net interest generated out of interest earning assets of the bank is comparatively low to the bank rate. The bank should maintain at least the bank rate and try to enhance its position to this level, i.e. bank rate.

Net Non- Performing Assets Ratio (NNPAR)

The mean value was reported to be 2.94 percent with C.V. value .98. The C.V. value .98 proves sharp fluctuation in the growth of NNPAR. The positive average annual growth rate and rising trend reflect the negative signal for the growing Indian economy. The bank should manage their non-performing assets, more efficiently and effectively. Therefore, a careful step is needed while distributing the loans and improving the recovery mechanism.

Cost to Income Ratio (CIR) : The mean value was noticed to be 43.27 percent with C.V. value .06. The average annual growth rate showed a negative figure. The lower ratio is better. It reflects efficiency measure similar to operating margin. It means bank is able to turn resources into revenue at low cost. Thus, this position should be improved by the bank.

Profit Per Employee Ratio (PPE)

The mean value happened to be .0447 with C.V. value .81. The average annual growth rate shows the negative figure which proves low profit per employee. Therefore, bank should increase the proportion of skilled employees with set business target to increase profit per employee.

Business Per Employee Ratio (BPE)

The mean value is recorded to be 10.35 with C.V. value .28. The average annual growth rate showed positive figures. This ratio witnessed an increasing trend over the period of the study. It reflects a good signal for the bank. Thus, the bank should maintain this trend in future years also.

Correlation Analysis

It appears that the ratios of financial and internal business process are positively correlated over the period of the study. It proves that with increase in the financial ratios, internal business process ratios will increase. The't' value .52 means correlation coefficient is insignificant at 95 percent level of confidence.

On the whole, the study observed that financial ratio of the bank is satisfactory in terms of capital adequacy and credit deposits ratio. On the other hand, internal business process ratio is efficient in terms of cost to income ratio and business per employee ratio. The overall performance evaluation of the bank during the study periods was not remarkable due to the slowdown of the economy. The traditional methods of performance evaluation are lopsided and focused on holistic performance measures. The finding of this study may be useful to the bank's managers, government, savers, users, etc. in planning the financing and non- financing decisions. In fact, the Indian banking system has reached even the remote corners of the country. This is one of the main reasons of India's growth process. Thus, the bank should increase the credit flow to the industry sector that helps in economic growth of the nation.

Limitations of the Study

The study is confined only to PNB from the Indian banking industry. It is also limited to ten years period. Hence, generalization of the findings of the study should be used very carefully. The study considers selected performance indicators under two perspectives. However, there is the possibility of missing certain performance factors under financial and internal business process.

Scope for Further Research

There is vast scope for further research on various factors that is customer satisfaction, learning and growth, interest rate and inflation, etc. The study can be extended to more number of banks over a longer period of time.

References

Annapurna, V., Manchala, G.(207), Balanced Scorecard Evaluation of the performance of Indian Public Sector Banks , Indian Journal of Finance, Vol II, No. 9 (Sept.), pp 7-19

Bharati, V., Pathak (2005), The Indian Financial System, New Delhi: Dorling Kindersley (India) Pvt. Ltd., Licensees of Person Education in South Asia

Bodla, B.S, Verma, R.(2006), Evaluating Performance of Banks through CAMEl, Model, A Case Study of SBI and ICICI, The ICFAI Journal of Bank Management, Vol. 5, No.3 pp 49-63

Hanumantha Rao, P., Dutta, Subhendu,(2014), Fundamental Analysis of the Banking Sectors in India, Indian Journal of Finance, Vol.8, No.9 (Sept.), pp 47-55

Pandey, I.M. (2004), Essentials of Financial management, New Delhi: Vikas Publishing House Limited

Prasuna Chandra (2008), Financial management, New Delhi: Tata Mcgraw Hill Publishing company Ltd

Singh, S.P., Arora, A., Anand, M. (1991), Performance Evaluation of SFCs: A Comparative Study of PFC and HFC. Parjnan, Vol. 2, No.3, pp 16-25

Verma, H.L, Malhotra, A.K.(2009), Funds Management in Commercial Banks, New Delhi: Deep and Deep Publication