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ANALYSIS OF CAPITAL ADEQUACY OF PUBLIC SECTOR BANKS IN INDIA

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Abstract:

In the present study, an attempt is made to analyze the present position of capital adequacy of selected public sector banks in India. First section includes a brief review of some of the earlier studies. Second section covers the scope, objectives, hypothesis and research methodology. In third section, an attempt is made to analyze the capital adequacy of selected banks namely State Bank of India (SBI), Punjab National Bank (PNB), Bank of Baroda (BOB), Bank of India (BOI) and Canara Bank (CB) in India by using CAMEL Model ratios for a period of 2012-13 to 2016-17. Fourth section covers the conclusion and limitations of the study. To achieve the objectives of the study, the use is made of secondary data collected mainly from Report on Trends and Progress of Banking in India, various journals such RBI Bulletin, IBA Bulletin, etc. To test the statistical significance of the results, one-way ANOVA technique has been used. The results of the study reveal that there is a significant difference in the capital adequacy ratio, ratio of advances to total assets, ratio of government securities to total investments and debt-equity ratio in the selected banks; therefore, null hypothesis is rejected.

Key Words: Capital Adequacy, Net NPA to Net Advances, Investments to Total Assets & Net NPA as percentage to Total Assets.

Introduction:

The face of banking in India is changing rapidly. The enhanced role of the banking sector in the Indian economy, the increasing levels of deregulation along with the increasing levels of competition have facilitated globalization of the Indian banking system and placed numerous demands on banks. Operating in this demanding environment has exposed the banks to various challenges and risks. In the process of providing financial services, they assume various kinds of financial risks. The quality, consistency and transparency of the capital base are one of the primary objectives of any banking institution. It is only through higher levels of loss absorbing capital that the banking sector will be in a stronger position to shield the economy from future shocks. The thrust of bank's work is to improve the level and proportion of the core elements of Tier 1 capital, namely common equity and retained earnings. Under the existing standard, banks could hold as little as 2 percent of risk-weighted assets as common equity. It is even less if you consider the need for additional regulatory adjustments. The Reserve Bank of India acts as a centralized body monitoring any discrepancies and shortcoming in the system. It is the foremost monitoring body in the Indian financial sector. It is generally accepted that greater financial system depth, stability and soundness contribute to economic growth. But beyond that, for growth to be truly inclusive requires broadening and deepening the reach of banking by improving earning quality of banking sector. A wider distribution and access of financial services helps both consumers and producers raise their welfare and productivity. Such access is especially powerful for the poor as it provides them opportunities to build savings, make investments, avail credit, and more important, insure themselves against income shocks and emergencies. Though the Indian financial system has made impressive strides in resource mobilization, geographical and functional reach, financial viability, profitability and competitiveness, vast segments of the population, especially the underprivileged sections of the society, have still no access to formal banking services. The Reserve Bank is, therefore, considering the proposal for providing licenses to a limited number of new banks. A larger number of banks would foster greater competition, and thereby reduce costs and improve the quality of service. More importantly, it would promote financial inclusion and ultimately support inclusive economic growth, which is a key focus of public policy. The success in the global scenario can be attained only if banks maintain competitive edged in their higher levels of capital adequacy to empower them with loss absorbing capital that the banking sector will be in a stronger position to shield the economy from future shocks.

Induced by the forgoing revelations, an attempt is made to analyze the capital adequacy of selected public sector banks in India, which is divided into four sections. First section includes a brief review of some of the earlier studies. Second section covers the scope, objectives, hypotheses and research methodology of the study. In third section, an attempt is made to analyze the capital adequacy of public sector banks in India. Fourth section covers the conclusion and limitations of the study.

Review of Literature:

The articles published on different facets of Indian banking reforms are restrictive in nature and have been found wanting in terms of the assessment of the impact of the reforms on the banking sector.

Reddy, B. Ram Chandra and Yuvaraja, B. (2001) were of the view that the adoption of international capital adequacy standards, deregulation of interest rates and entry of private and foreign banks underlined that the speed and sequencing of the financial sector reforms should be as per the requirements of the Indian economy.

Rao, D. Nageswara (2002) concluded that the international regulations are forcing the Indian banks to adopt better operational strategies and upgrade the skills. The system requires new technologies, well-guarded risk and credit appraisal system, treasury management, product diversification, internal control, external regulation as well as skilled human resources to achieve the international excellence and to face the global challenges.

Muniappan, G. P. (2003) focused on two areas - firstly, challenges faced by the Indian banks and secondly, the management of these challenges. Every aspect of the banking industry, be it profitability, NPA management, customer service, risk management, HRD etc., has to undergo the process of transformation of aligning with the international best practices. He concluded that the future of Indian banking system needs a long-term strategy, which should cover areas like structural aspects, business strategies, prudential control systems, integration of markets, technology issues, credit delivery mechanism and information sharing, etc.

Ghosh, S. and A. Das (2005) highlighted the ways how market forces may motivate banks to select high capital adequacy ratios as a means of lowering their borrowing costs. If the effect of competition among banks is strong, then it may overcome the tendency for bank capitalization. If systemic effects are strong, regulation is required. Empirical tests for the Indian public sector banks during the 1990s demonstrated that better capitalized banks experienced lower borrowing costs.

Sharma, Mandira and Nikaido, Yuko (2007) presented an analytical review of the capital adequacy regime of the banking sector in India and concluded that in the regime of Basel I, Indian banking system performed reasonably well, with an average CRAR of about 12 per cent, which was higher than the internationally accepted level of 8 per cent as well as India's own minimum regulatory requirement of 9 per cent.

Ghosh, Debarshi and Ghosh, Sukanya (2011) emphasized on management of non-performing assets in the perspective of the public sector banks in India under strict asset classification norms, use of latest technological platform, recovery procedures and other bank specific indicators in the context of stringent regulatory framework of the Reserve Bank of India and concluded that the reduction of non-performing assets is necessary for improving the profitability of banks and to comply with the capital adequacy norms as per the Basel Accord(s).

Thiagarajan, Somanadevi & Ayyappan, S. and Ramachandran, A. (2011) analyzed the role of market discipline on the behaviour of commercial banks with respect to their capital adequacy and concluded that the commercial banks are well capitalized and the ratio is well over the regulatory minimum requirement. The private sector banks show a higher percentage of Tier-I capital over the public sector banks. However the public sector banks show a higher level of Tier-II capital. The study also indicated that the Non-Performing Assets influenced the cost of deposits for both public and private sector banks in a significant manner. The return on equity had a significant positive influence on the cost of deposits for private sector banks. The public sector banks can reduce the cost of deposits by increasing their Tier-I capital.

Objectives of the Study:

The present study aims to analyze the current position of capital adequacy of selected public sector banks in India.

Period of Study:

The study covered five years from 2012-2013 to 2016-2017.

Scope of the Study:

This study covers five public sector banks in India namely State Bank of India (SBI), Punjab National Bank (PNB), Bank of Baroda (BOB), Bank of India (BOI) and Canara Bank (CB).

Research Methodology:

To achieve the objective of the study, the use is made of secondary data for a period of five years i.e. from 2012-13 to 2016-17, collected mainly from Report on Trends and Progress of Banking in India, various journals such as RBI Bulletin, etc. To test the statistical significance of the results, one-way ANOVA technique has been used to arrive at the conclusion.

Hypothesis of the Study:

This study is based on the following null hypothesis (H_0):

- ✓ $H_0$1: There is no significant difference in the capital adequacy ratio of the selected public sector banks in India.

- ✓ $H_0$2: There is no significant difference in the advances to total assets of the selected public sector banks in India.
- ✓ $H_0$3: There is no significant difference in the government securities to total investments of the selected public sector banks in India.
- ✓ $H_0$4: There is no significant difference in the debt-equity ratio of the selected public sector banks in India.

Analysis of Capital Adequacy:

It is important for a bank to maintain depositors' confidence and preventing the bank from going bankrupt. Capital is seen as a cushion to protect the depositors and promote the stability and efficiency of financial system. Capital adequacy reflects the overall financial condition of the banks and also the ability of the management to meet the need for additional capital. It also indicates whether the bank has enough capital to absorb unexpected losses. Capital adequacy ratios act as indicators of bank leverage. The following ratios are used to measure the capital adequacy:

1. Capital Adequacy Ratio:

The banks are required to maintain the capital adequacy ratio as specified by RBI from time to time. As per the latest RBI norms, the banks in India should have a CAR of 9 per cent. It is arrived at by dividing the sum of Tier-I and Tier-II capital by aggregate of risk weighted assets (RWAs). The higher the CAR, the stronger is considered a bank as it ensures high safety against bankruptcy. Tier-I capital includes equity capital and free reserves. Tier-II capital comprises of subordinate debt of 5-7 years tenure, revaluation reserves, general provisions and loss reserves, hybrid debt capital instruments and undisclosed reserves and cumulative perpetual preference shares.

Table 1: Capital Adequacy Ratio

(Rs. in Crore)

Year	SBI	PNB	BOB	BOI	CB
2012-2013	12.92	12.72	13.30	11.02	12.40
2013-2014	12.96	12.11	12.28	9.97	10.63
2014-2015	12.00	12.89	12.60	10.73	10.56
2015-2016	13.12	11.28	13.17	12.01	11.08
2016-2017	13.11	11.66	13.17	12.14	12.86

Table-1 shows the capital adequacy ratio of the banks under study. It ranges from 12.00 to 13.12 in case of SBI, from 11.28 to 12.89 in case of PNB, from 12.28 to 13.17 in case of BOB, from 9.97 to 12.14 in case of BOI and from 10.56 to 12.86 in case of CB during the period of study.

2. Advances to Total Assets:

The ratio of the advances to total assets indicates a bank's aggressiveness in lending, which ultimately results in better profitability. Higher ratio of advances to total assets is preferred to a lower one. The value of total assets is excluding the revaluation of all the assets.

Table 2: Advances to Total Assets

(Rs. in Crore)

Year	SBI	PNB	BOB	BOI	CB
2012-2013	82.25	72.81	72.22	75.40	67.39
2013-2014	82.04	75.06	71.78	78.66	73.07
2014-2015	77.39	72.73	68.03	73.27	69.67
2015-2016	78.34	71.10	60.90	63.23	64.54
2016-2017	72.78	65.79	61.83	64.10	65.68

As is evident from the Table-2, the ratio of the advances to total assets ranges from 72.78 to 82.25 in case of SBI, from 65.79 to 75.06 in case of PNB, from 60.90 to 72.22 in case of BOB, from 63.23 to 78.66 in case of BOI and from 64.54 to 73.07 in case of CB during the period of study.

3. Government Securities to Total Investments:

The proportion of investment in government securities to total investments is a very important indicator, which shows the risk-taking ability of the bank. It indicates a bank's strategy as being high profit-high risk or low profits-low risk. It also gives a view as to the availability of alternative investment opportunities. Government securities are generally considered as the most safe debt instrument, which as a result, carries the lowest return. Since government securities are risk-free, therefore higher the government securities to investment ratio, the lower the risk involved in a bank's investments and vice versa.

Table 3: Government Securities to Total Investments

(Rs. in Crore)

Year	SBI	PNB	BOB	BOI	CB
2012-2013	29.52	32.75	23.83	25.91	32.68
2013-2014	28.85	32.47	22.78	24.31	31.93

2014-2015	30.07	30.97	20.10	23.19	30.43
2015-2016	29.39	29.32	20.37	22.84	30.16
2016-2017	32.93	29.33	21.27	23.43	30.01

As is evident from the Table-3, the ratio of government securities to total investments ranges from 29.39 to 32.93 in case of SBI, from 29.32 to 32.75 in case of PNB, from 20.10 to 23.83 in case of BOB, from 22.84 to 25.91 in case of BOI and from 30.01 to 32.68 in case of CB during the period of study.

4. Debt-Equity Ratio:

This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity. This is calculated as the proportion of outside liabilities to net worth. Outside liabilities includes total borrowings, deposits and other liabilities. Net worth includes equity capital and reserves and surplus. Higher ratio indicates less protection for the creditors and depositors in the banking system and vice versa.

Table 4: Debt-Equity Ratio

(Rs. in Crore)

Year	SBI	PNB	BOB	BOI	CB
2012-2013	13.87	13.80	15.65	17.44	16.47
2013-2014	13.34	14.48	16.83	17.56	18.57
2014-2015	13.87	14.51	16.39	18.19	18.88
2015-2016	13.55	17.28	15.11	18.19	19.37
2016-2017	15.08	17.39	15.69	18.83	18.89

Table 4 shows the debt-equity ratio of the banks under study. It ranges from 13.34 to 15.08 in case of SBI, from 13.80 to 17.39 in case of PNB, from 15.11 to 16.83 in case of BOB, from 17.44 to 18.83 in case of BOI and from 16.47 to 19.37 in case of CB during the period of study.

Testing of Hypothesis:

The results of the hypothesis tested are shown as follows:

Table 5: One Way Analysis of Variance
(Data of 5 years 2013 – 2017) and (Critical Value of F=2.87)

Ratio	Source of Variation	Sum of Squares	Degrees of Freedom	Mean Squares	F - Ratio
Capital Adequacy Ratio	Between Sample Within Sample	11.89 11.30	4 20	2.97 0.57	5.21
Advances to Total Assets	Between Sample Within Sample	410.86 461.65	4 20	102.72 23.08	4.45
Government Securities to Total Investments	Between Sample Within Sample	391.41 43.18	4 20	97.85 2.16	45.30
Debt-Equity Ratio	Between Sample Within Sample	69.60 21.72	4 20	17.40 1.09	15.96

As per Table-5 the results of one-way ANOVA reveal that there is a significant difference in the capital adequacy ratio, ratio of advances to total assets, ratio of government securities to total investments and debt-equity ratio in the selected banks; therefore, null hypothesis is rejected.

Conclusion and Limitations:

To sum up, there is a significant difference in the capital adequacy ratio, ratio of advances to total assets, ratio of government securities to total investments and debt-equity ratio in the selected banks; therefore, null hypothesis is rejected. The results obtained from the present study will be helpful to the policy makers, depositors, investors and other stakeholders to take decisions about the capital adequacy of the selected public sector banks in India. As the present study covers the analysis of five public sector banks for a period of five years only, therefore the results drawn cannot be applied to the banking sector as whole.

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