



A STUDY ON CAPITAL ADEQUACY OF SELECT PUBLIC AND PRIVATE SECTOR BANKS OF INDIA

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Abstract: The banking sector is crucial to any country's economic growth and development. The future viability and soundness of this essential and well-recognized system need to be assessed. The capital adequacy ratio, or CAR, analyses a bank's risk-weighted assets in relation to its available capital. The ratio provides a quick indication of a bank's ability to cover losses and maintain its solvency in difficult scenarios. This paper attempts to examine the capital adequacy status of six major Indian public and private banks i.e., three from the public sector and three from the private sector. The State Bank of India (SBI), Bank of Baroda (BOB) and Punjab National Bank (PNB) as the largest public sector banks and Housing Development Finance Corporation (HDFC), Industrial Credit and Investment Corporation of India (ICICI) and KOTAK Bank as the largest private sector banks are selected for the study. The evaluation of financial performance of selected banks is done using an acronym "C" of CAMEL rating system as recommended by Padmanabhan Committee. Capital Adequacy Ratios, Asset Quality Ratios, Management Efficiency Ratios, Earnings Quality Ratios, and Liquidity Ratios are the evaluation parameters of CAMEL Model. The period of the study is from 2014 to 2023. To analyze the outcomes, descriptive statistics are utilized. One-way ANOVA test is applied for hypothesis testing.

Index Terms - CAMEL rating system, Capital Adequacy Ratio, Risk-weighted assets, Ratio analysis.

I. INTRODUCTION

Any nation's ability to prosper economically is greatly influenced by its banking industry. Banks facilitate opportunity creation and economic growth in local areas. The vast quantity of deposits in Indian banks is indicative of the public's trust in these institutions. It is a fiduciary responsibility of a bank to safeguard public funds. A bank's capital retention in relation to risk and responsibility of safeguarding the deposits is gauged by the capital adequacy ratio. In other words, it shows how well a bank can cover its costs, safeguard public deposits and absorb any shocks caused on by losses. The CAR of banks and the financial system is monitored by national financial regulators to ascertain how well they can withstand a fair level of loss. Regulators are also required to ascertain if a bank's existing CAR conforms to the laws' statutory capital requirements. It is therefore appropriate to assess the soundness and sustainability of this crucial and well-recognized system. This paper aims to evaluate and assess the financial viability in terms of Capital Adequacy of six significant banks, 3 public banks and 3 private sector banks of India. The sample banks are selected based on its Capitalization and its Net Profit.

II. REVIEW OF LITERATURE

The literature review is a crucial phase in assessing the current state of knowledge in the field of study that the researcher intended to pursue and in areas that previous researchers have not yet explored.

Prasuna (2003) investigated the performance of Indian banks using the CAMEL Model. Between 2003 and 2004, a performance analysis was carried out on 65 banks. The author concluded that despite fierce competition, customers gained access to better offers, innovative products, and higher-quality services.

Milind Sathye (2003) measured the productive efficiency of public, private, and foreign banks in India since financial sector reforms in 1992 and 1997 to determine how market and regulatory initiatives have affected their efficiency and profitability. The study found that Indian banks' efficiency scores are equal to the world average, and private sector commercial banks are less efficient than public sector and international banks combined.

Ray and Mohan (2004) empirically compared public and private banks. The article compared physical inputs and outputs from public, commercial, and international banks. The survey included 20 private, 11 international, and 20 public banks. The CAMEL model showed that public sector banks outperformed private sector banks by a large margin, while overseas banks performed similarly.

Goyal and Kaur (2008) examined seven new private banks' 2001–07 performance. The study used t-test, One-Way ANOVA, and SD. The investigation identified high debt-to-equity ratios for Axis Bank, Kotak, and Mahindra Bank. Every bank under review showed a higher ratio of advances to assets, indicating more lending. Except for liquid assets to total assets, liquid assets to total deposits, net profit to average assets, and non-performing asset percentage shift, all mean ratios differed significantly.

Siva and Natarajan (2011) tested CAMEL criteria on SBI Group performance. The study found that annual CAMEL scanning helps commercial banks scrutinise their financial health and take sustainability actions.

Misra (2013) used the CAMEL approach to assess the State Bank Group's performance and financial soundness, finding that it needs to improve its capital adequacy and asset quality.

Dr. Rao Madhusudhana K. (2014) found that HDFC surpasses SBI in market growth for firm price, but SBI outperforms HDFC in banking operations and is better for risk-taking investors. Market value is higher for SBI than HDFC.

Chintala and Kumar (2016) examined public and private bank finances. From 2011 to 2016, SBI, BoB, PNB, CBI, IDBI, HDFC, ICICI, Kotak, and IndusInd banks were assessed for total income, interest income, and service income. They found that private banks grew fastest and were more lucrative.

Kumar & Kumar (2016) examined and compared the output of four public sector banks from 2011 to 2015. They concluded that SBI is better than other public banks after comparing it to them using a number of financial ratios.

Ramya (2017) used the CAMEL technique to examine the State Bank of India's financial performance for the study period of 2012–2016. Debt-to-equity, operating profit, and non-interest income to total income indicated that SBI needed take steps to improve its position.

C.Vanlalazawna (2018) evaluated the financial performance of two public and two private Indian banks between 2008 and 2013 using ratio analysis, ANOVA, and the CAMEL model. The results showed that private sector banks outperform public sector banks in all of the chosen parameters.

III. RESEARCH METHODOLOGY

Objectives of the Study:

1. To analyse the financial viability of 3 major public sector banks with the 3 major private banks using Capital Adequacy Norms.
2. To assess and rank the selected banks on the basis of their Capital Adequacy Ratios.

Hypothesis:

H0 1: There is no significant difference in Capital Adequacy Trends among the select Public and Private sector banks of India within the group.

H 02: There is no significant difference in financial performance of select public and private sector banks between the groups in terms of Capital Adequacy.

Scope of the Study:

The purpose of the study is to evaluate the six principal banks in the public and private sectors.

Period of the Study: The study spans 10 years. - March 2014 to March 2023.

Data Collection:

The study makes use of secondary data. An analysis was conducted on the annual reports and financial statements of SBI, BOB, PNB, HDFC, ICICI Bank, and KOTAK Bank. Periodicals such as magazines, websites, bulletins, newspapers, and others are referred.

Statistical Tools Used:

The data is analysed and hypotheses are tested using a variety of statistical and financial techniques, including ratio analysis, descriptive statistics, and the one-way ANOVA test.

Sample Size:

Sample sizes of six banks are considered for the study. The State Bank of India (SBI), Bank of Baroda (BOB) and Punjab National Bank (PNB) are from the public sector banks and Housing Development Finance Corporation (HDFC), Industrial Credit and Investment Corporation of India (ICICI) and KOTAK are from the private sector banks that have been taken as sample. The criteria for choosing the sample is based on their market capitalization value and the net profits earned.

List of Select Public and Private Sector Banks of India (as on June 2022)				
S. No	Sector	Name of the Bank	Market Capitalization (Rs. in Cr)	Net Profit (Rs. in Cr)
1	Public	SBI (State Bank of India)	5,27,801	31,676
2		BOB (Bank of Baroda)	92,153	7,272
3		PNB (Punjab National Bank)	62,488	3,457
1	Private	HDFC (Housing Development Finance Corporation)	9,12,887	36,961
2		ICICI (Industrial Credit and Investment Corporation of India)	6,06,678	23,339
3		Kotak Mahindra	3,56,969	8572

Limitations of the study:

Since the current study spans ten years, the outcomes cannot be applied to other contexts.

IV. RESULTS AND DISCUSSION

The following ratios are taken into account for determining whether the selected bank maintains adequate capital to overcome losses and protect public deposits

Capital Adequacy Ratios:**1. Ratio of Capital to Risk-weighted Assets (CRAR):**

The Capital Adequacy Ratio, which evaluates a bank's capacity to meet obligations and manage operational and credit risks, established guidelines for banks. A bank with a high CAR is well-capitalized to withstand potential losses. As a result, there is less chance that it will go bankrupt and forfeit depositors' funds. The CRAR can be calculated with the following formula:

$$\text{CAR} = \frac{(\text{Tier 1 Capital} + \text{Tier 2 Capital})}{\text{Total Risk-weighted Assets}}$$

Tier 1 Capital = {(paid up capital + statutory reserves + disclosed free reserves) - (equity investments in subsidiaries + intangible assets + current & cumulative losses)}

Tier 2 Capital consists of general loss reserves, subordinated debt, hybrid debt, and hidden reserves.

Table No. 1

Capital Adequacy Ratio (CRAR) Comparison of Select Public & Private Banks of India						
Banks/ Year	Public Sector Banks			Private Sector Banks		
	SBI	BOB	PNB	HDFC	ICICI	KOTAK
31-03-2014	12.44%	12.28%	11.52%	16.10%	17.70%	18.80%
31-03-2015	12.00%	12.60%	12.21%	16.80%	17.02%	17.20%
31-03-2016	13.12%	13.17%	11.28%	15.50%	16.60%	16.30%
31-03-2017	13.11%	12.24%	11.66%	14.60%	17.40%	16.80%
31-03-2018	12.60%	12.13%	9.20%	14.80%	18.40%	18.22%
31-03-2019	12.72%	13.42%	9.73%	17.10%	16.90%	17.45%
31-03-2020	13.06%	13.30%	14.14%	18.50%	16.11%	17.89%
31-03-2021	13.74%	14.99%	14.32%	18.80%	19.12%	22.26%
31-03-2022	13.83%	15.68%	14.50%	18.90%	19.16%	22.69%
31-03-2023	14.68%	16.24%	15.50%	19.26%	18.34%	21.80%
MINIMUM	12.00%	12.13%	9.20%	14.60%	16.11%	16.30%
MAXIMUM	14.68%	16.24%	15.50%	19.26%	19.16%	22.69%
AVERAGE	13.13%	13.61%	12.41%	17.04%	17.68%	18.94%
AVERAGE [Sector-wise]	13.05%			17.88%		
STD. DEV	0.78%	1.50%	2.13%	1.76%	1.05%	2.40%
C.V	0.059	0.110	0.171	0.103	0.060	0.127
RANK [sector-wise]	2	1	3	3	2	1
RANK (Overall)	5	4	6	3	2	1

Analysis and Discussion:

A selected group of banks has pledged to keep the CAR at the pre-specified rate of 9% set by the RBI. It showed that ICICI and KOTAK banks are ranked #1 and 2nd, respectively, from private sector banks whereas public sector banks BOB and SBI bank hold 1st and 2nd rank respectively. The overall calculations show that first three ranks were scored by private sector banks i.e., KOTAK, ICICI and HDFC whereas the public sector bank BOB scored 4th rank. The average percentage of CAR in private sector banks is 17.88%, which is significantly higher than the public sector banks' 13.05%. Overall, the public and private sectors have continued to maintain sufficient capital at the RBI-predetermined rate of 9%. In order to protect deposit holders' interest in the banks, Maintaining the long-term solvency position is aided by the capital adequacy ratio.

2. Ratio of Advances to Total Assets:

A financial indicator called the Loans to Assets Ratio, or Total Advances to Total Assets Ratio, is used to determine how much of a bank's assets are secured by loans or advances. It is computed as a percentage and is obtained by dividing the whole loan portfolio (advances) by the total assets of the bank.

The Total Advances to Total Assets Ratio may be calculated mathematically as follows:

This calculation shows how aggressively a bank lends money, which eventually boosts profitability.

Advances to Total Assets Ratio = (Advances / Total Assets)

It is preferable to have a higher advance to assets ratio than a lower one.

Table No. 2

Total Advances to Total Assets Ratio Comparison of Select Public and Private Banks of India						
Banks/ Year	Public Sector Banks			Private Sector Banks		
	SBI	BOB	PNB	HDFC	ICICI	KOTAK
31-03-2014	67.48%	60.20%	63.46%	61.64%	56.96%	60.54%
31-03-2015	63.48%	59.87%	63.07%	61.90%	59.98%	62.41%
31-03-2016	62.08%	57.16%	61.78%	62.72%	60.40%	61.72%
31-03-2017	58.06%	55.16%	58.24%	64.20%	60.15%	63.41%
31-03-2018	56.01%	59.37%	56.64%	61.88%	58.28%	64.06%
31-03-2019	59.38%	60.03%	87.00%	65.84%	60.83%	65.89%
31-03-2020	58.85%	59.60%	56.80%	64.93%	58.75%	61.00%
31-03-2021	54.02%	61.13%	53.48%	64.85%	59.63%	58.33%
31-03-2022	54.82%	60.81%	55.38%	66.17%	60.87%	63.17%
31-03-2023	57.99%	64.52%	56.84%	64.90%	64.36%	65.30%
MINIMUM	54.02%	55.16%	53.48%	61.64%	56.96%	58.33%
MAXIMUM	67.48%	64.52%	87.00%	66.17%	64.36%	65.89%
AVERAGE	59.22%	59.78%	61.27%	63.90%	60.02%	62.58%
AVERAGE(Sector-wise)	60.09%			62.17%		
STD. DEV	4.14%	2.45%	9.64%	1.72%	1.96%	2.29%
C.V	0.070	0.041	0.157	0.027	0.033	0.037
RANK (Sector-wise)	3	2	1	1	3	2
RANK (Overall)	6	5	3	1	4	2

Analysis and Discussion:

This ratio shows how aggressive a bank is with lending, which eventually leads to higher profitability. It is better to have a higher advance to asset ratio than a lower one. The average lending rate to total assets of private banks is 62.17% and public banks are 60.09%. It shows the lending rate of private banks is better than the public banks. It is observed that HDFC ranked first in lending activity with more consistency (0.027) followed by KOTAK, PNB and ICICI bank. It is concluded that banks in the private sector were operating more effectively. in lending than public banks.

3. Debt-Equity Ratio:

The ratio displays a bank's level of leverage. It indicates the extent to which debt and equity are used to fund the bank's activities.

Debt-Equity Ratio = (Debt / Equity)

'Outside Liabilities' = Total Borrowings + Deposits.

'Net Worth' = Equity capital + Reserves & Surplus.

In the banking system, A greater ratio indicates that depositors and creditors are not as protected. Reliability and reduced risk are generally associated with low debt to equity ratios.

Table No. 3

Debt Equity Ratio Comparison of Select Public and Private Banks of India						
Banks/ Year	Public Sector Banks			Private Sector Banks		
	SBI	BOB	PNB	HDFC	ICICI	KOTAK
31-03-2014	13.34%	16.83%	13.91%	9.36%	6.65%	5.86%
31-03-2015	13.87%	16.39%	14.00%	8.00%	6.64%	6.15%
31-03-2016	14.24%	15.11%	16.00%	8.69%	6.86%	6.66%
31-03-2017	12.55%	15.69%	15.83%	8.02%	6.58%	6.46%
31-03-2018	14.00%	15.07%	17.12%	8.58%	7.28%	5.81%
31-03-2019	15.00%	15.37%	15.97%	6.97%	7.77%	6.02%
31-03-2020	15.33%	14.46%	12.09%	7.56%	8.24%	6.14%
31-03-2021	16.14%	13.42%	12.64%	7.22%	7.09%	4.77%
31-03-2022	15.99%	13.38%	12.48%	7.26%	7.00%	4.66%
31-03-2023	15.01%	13.29%	13.34%	7.46%	6.58%	4.63%
MINIMUM	12.55%	13.29%	12.09%	6.97%	6.58%	4.63%
MAXIMUM	16.14%	16.83%	17.12%	9.36%	8.24%	6.66%
AVERAGE	14.55%	14.90%	14.34%	7.91%	7.07%	5.72%
AVERAGE (Sector-wise)	14.60%			6.90%		
STD. DEV	1.15%	1.25%	1.76%	0.76%	0.56%	0.76%
C.V	0.079	0.084	0.123	0.097	0.079	0.132
RANK (Sector-wise)	2	3	1	3	2	1
RANK (Overall)	5	6	4	3	2	1

Analysis and Discussion:

The debt-to-equity ratio shows whether a company relies on debt or its own resources to finance operations. It is considered that the ideal ratio of debt-equity ranges from 4% to 8%. A higher debt to equity ratio means that debt is used to finance a larger portion of the company's operations, which can be dangerous if not managed properly. A lower debt to equity ratio indicates that the company's operations are primarily funded by equity and shareholder contributions. It is noted that the debt-to-equity ratio of private sector banks remains at 6.90% which is within the standards and the public sector banks maintaining 14.60% which indicates that they are depending more on debt. The KOTAK bank is using less debt than other private and public banks and leads 1st rank with more consistency followed by ICICI, HDFC and PNB.

4. Government Securities to Total Investments Ratio.

A financial indicator called the Government Securities to Total Investments Ratio is used to assess how much of a bank's investment portfolio is made up of government securities relative to its total investments. This ratio sheds light on how a bank allocates its assets and how much of it is invested in government securities, which are frequently seen as low-risk investments. This is a crucial metric that shows the bank's readiness to take on risks.

Ratio of Government Securities to Total Investments = (Govt. Securities/Total Investments).

The smaller the risk associated with a bank's investments, the higher the government securities to investment ratio because government securities are risk-free.

Table No. 4

Govt. Securities to Total Investments Ratio Comparison of Select Public and Private Banks of India						
Banks/ Year	Public Sector Banks			Private Sector Banks		
	SBI	BOB	PNB	HDFC	ICICI	KOTAK
31-03-2014	78.20%	83.35%	78.10%	78.25%	54.17%	68.53%
31-03-2015	77.45%	80.83%	81.94%	72.32%	57.56%	75.22%
31-03-2016	81.56%	86.05%	80.14%	80.51%	70.33%	79.52%
31-03-2017	76.25%	88.06%	79.09%	75.73%	69.67%	80.29%
31-03-2018	80.95%	88.86%	76.86%	77.95%	69.72%	80.17%
31-03-2019	79.99%	89.23%	80.16%	82.72%	72.17%	81.56%
31-03-2020	78.35%	90.37%	85.41%	82.66%	76.63%	82.48%
31-03-2021	79.40%	88.54%	87.79%	79.27%	81.33%	81.20%
31-03-2022	79.78%	88.47%	87.31%	80.51%	86.10%	74.70%
31-03-2023	80.77%	88.53%	89.97%	84.61%	85.56%	74.01%
MINIMUM	76.25%	80.83%	76.86%	72.32%	54.17%	68.53%
MAXIMUM	81.56%	90.37%	89.97%	84.61%	86.10%	82.48%
AVERAGE	79.27%	87.23%	82.68%	79.45%	72.33%	77.77%
AVERAGE (Sector-wise)	83.06%			76.52%		
STD. DEV	1.69%	2.97%	4.59%	3.62%	10.70%	4.46%
C.V	0.021	0.034	0.055	0.046	0.148	0.057
RANK (Sector-wise)	3	1	2	1	3	2
RANK (Overall)	4	1	2	3	6	5

Analysis and Discussion:

Because of the government securities are risk-free, the bigger the government securities to investment ratio, the lower the risk of bank investments. Comparatively, the BOB has invested more in Government securities and operating at low risk. The BOB ranked 1st with high consistency, the PNB and HDFC ranked 2nd and 3rd rank respectively. The investment in Govt. securities is about 83.06% made by the public sector banks whereas 76.52% is the share of investments made by the private sector banks and it is observed that all the selected public and private sector banks are operating at low risk by investing more in Govt. securities and ultimately the deposits of the public have been safeguarded.

Table No. 5

COMPOSITE CAPITAL ADEQUACY RATIOS											(C – Capital Adequacy)										
Sector / Ratio		Capital to Risk Weighted Assets Ratio (CRAR)				Advances to Total Assets Ratio					Debt-Equity Ratio					Govt. Securities to Total Investments Ratio					
Criteria of Ranking		Predetermined Rate Of 9 % Established by RBI				Higher Ratio Is Preferred to a Lower One.					A Low Ratio is Considered Good and Less Risky.					The Higher the Ratio, the Lower the Risk Involved in Bank's Investments.					
Average & Ranking		Average	Rank (Within The Group)	Rank (Overall)	Average (Sector-Wise)	Rank (Sector-Wise)	Average	Rank (Within The Group)	Rank (Overall)	Average (Sector-Wise)	Rank (Sector-Wise)	Average	Rank (Sector-Wise)	Rank (Overall)	Average (Sector-Wise)	Rank (Sector-Wise)	Average	Rank (Within The Group)	Rank (Overall)	Average (Sector-Wise)	Rank (Sector-Wise)
PUBLIC SECTOR BANKS	SBI	13.13 %	2	5	13.05 %	2	59.22 %	3	6	60.09 %	2	14.55 %	2	5	14.60 %	2	79.27 %	3	4	83.06 %	1
	BOB	13.61 %	1	4			59.78 %	2	5			14.90 %	3	6			87.23 %	1	1		
	PNB	12.41 %	3	6			61.27 %	1	3			14.34 %	1	4			82.68 %	2	2		
PRIVATE SECTOR BANKS	HDFC	17.04 %	3	3	17.88 %	1	63.90 %	1	1	62.17 %	1	7.91%	3	3	6.90 %	1	79.45 %	1	3	76.52 %	2
	ICICI	17.68 %	2	2			60.02 %	3	4			7.07%	2	2			72.33 %	3	6		
	KOTAK	18.94 %	1	1			62.58 %	2	2			5.72%	1	1			77.77 %	2	5		

Analysis and Discussion:

The Capital Adequacy parameter was evaluated by taking the average of Capital to Risk-weighted Assets, Advances to Total assets, Debt-Equity and Government Securities to Total investments ratios. From public sector, the BOB bank has the greater ratio. with regard to CRAR and Govt. securities to Total investments ratio whereas the SBI ranked 2nd with regard to CRAR and Debt-Equity ratios. From private sector, the KOTAK bank secured 1st rank with regard to CRAR and Debt-Equity ratios. The HDFC bank ranked 1st with regard to Advances to Total assets and Govt. securities to Total investments ratios. Overall, Private Banks secured 1st rank in terms of CRAR, Advances to Total assets and Debt-Equity ratios. The public sector banks have placed in 1st rank in terms of the level of investment made in Govt. securities to total investments.

Table No.6
Financial Performance Analysis of Select Banks Using Capital Adequacy Parameter

Sector / Ratio		Composite CAR (CRAR, TATA Ratio and GSTI Ratios)				
Criteria of Ranking		(**) A higher ratio is considered good.				
Average & Ranking		Average	Rank (Sector- Wise)	Rank (Overall)	Average (Sector- Wise)	Rank (Sector- Wise)
PUBLIC SECTOR BANKS	SBI	14.55%	2	5	14.60%	2
	BOB	14.90%	3	6		
	PNB	14.34%	1	4		
PRIVATE SECTOR BANKS	HDFC	7.91%	3	3	6.90%	1
	ICICI	7.07%	2	2		
	KOTAK	5.72%	1	1		

SECTOR / RATIO		DEBT-EQUITY RATIO				
CRIETERIA OF RANKING		(**) A low ratio is considered good and less risky.				
Average & Ranking		Average	Rank (Sector- Wise)	Rank (Overall)	Average (Sector- Wise)	Rank (Sector- Wise)
PUBLIC SECTOR BANKS	SBI	14.55%	2	5	14.60%	2
	BOB	14.90%	3	6		
	PNB	14.34%	1	4		
PRIVATE SECTOR BANKS	HDFC	7.91%	3	3	6.90%	1
	ICICI	7.07%	2	2		
	KOTAK	5.72%	1	1		

Table No. 7
RANKING of Banks by Capital Adequacy Parameter

RATIOS		(1) CRAR			(2) TATA			(3) D/E R			(4) GSTI		
RANK		WG	BG	Over all	W G	BG	Over all	W G	BG	Over all	WG	BG	Over all
	SBI	2	5	2	3	6	2	2	5	2	3	4	1
	BOB	1	4		2	5		3	6		1	1	
	PNB	3	6		1	3		1	4		2	2	
	HDFC	3	3	1	1	1	1	3	3	1	1	3	2
	ICICI	2	2		3	4		2	2		3	6	
	KOTAK	1	1		2	2		1	1		2	5	

(1) CRAR: Capital to Risk-weighted Assets Ratio (4) GSTI: Govt. Securities to Total Investments

(2) TATA: Total Advances to Total Assets Ratio (5) WG: Within the Group

(3) D/E R: Debt-Equity Ratio

(6) BG: Between the Groups

Table No. 8

Testing of Hypothesis – Composite Capital Adequacy Ratios of Selected Public & Private Banks of India (C)						
SECTOR/ RATIO	PUBLIC SECTOR BANKS (SBI, BOB and PNB)	PRIVATE SECTOR BANKS (HDFC, ICICI and KOTAK)	ANALYSIS & DISCUSSION 1) H0 1: There is no significant difference in Capital Adequacy Trends among the select Public and Private sector banks of India. ACCEPT / REJECT NULL HYPOTHESIS: P-value (0.9966) > Level of Significance (0.05) & F-value (2.01998) is < F-crit-value (7.7086) RESULT: ACCEPT THE NULL HYPOTHESIS (H0)			
CAR	13.05%	17.88%				
ATAR	60.09%	62.17%				
GSTIR	83.06%	76.52%				
Anova: Single Factor						
SUMMARY						
Groups			Count	Sum	Average	Variance
PUBLIC SECTOR BANKS (SBI, BOB and PNB)			3	1.561978378	0.520659459	0.12735704
PRIVATE SECTOR BANKS (HDFC, ICICI and KOTAK)			3	1.565636134	0.521878711	0.093423578
ANOVA						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.22986E-06	1	2.22986E-06	2.01998E-05	0.996629199	7.708647422
Within Groups	0.441561237	4	0.110390309			
Total	0.441563467	5				

Analysis & Discussion: Accept the null hypothesis (H0) since the resulting probable value (0.9966) above the significance threshold of 0.05 and the derived F-critical value (2.01998) is bigger than the F-value (7.7086).

According to the derived values, "There is no significant difference in Capital Adequacy Trends among the select public and private sector banks of India".

CONCLUSION

It was identified that BOB and KOTAK banks are ranked 1st in terms of capital adequacy, PNB and HDFC ranked 1st in terms of ratio of advances to total assets, PNB and KOTAK bank secured rank 1 in terms of debt-equity ratio and BOB and HDFC banks ranked 1st in terms of govt. securities to total investments ratio from public and private banks respectively. The composite CAR, ratio of advances to total assets and debt-equity ratios of private sector banks are ranked 1st and Govt. securities to total investments of public banks ranked 1st which shows that these banks are operating at low risk by safe investment policy. Commercial banks require maintain a significant amount of CAR for internal safety and security. Commercial banks have relied on the business, where a big number of insolvent assets await. With a significant quantity of CAR, they can quickly cover the financial loss and resolve the bankrupt thighs. Public sector banks also keep a minimal amount of CAR to accommodate the credit reserve mechanism.

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