

A Study on Liquidity Risk Management: A Comparative Study on Selected Public & Private Sector Banks In India.

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ABSTRACT

For the economy to run smoothly, the banking sector must maintain a healthy liquidity position. Liquidity risk is produced when a bank fails to manage its liquidity, which raises the likelihood of default in the financial sector. In actuality, the primary cause of all adverse occurrences throughout Insufficient liquidity in the Indian banking sector contributed to the most recent financial crisis. Consequently, it is very It's crucial to research the factors influencing bank liquidity. The current study is to examine both common and uncommon factors impacting bank liquidity while taking into consideration the Indian Banking Industry as the target population 2011-2021. T test is used to analyse the effects of various bank-specific factors on the banks' liquidity risks.

Keywords: Liquidity Risk, Bank Performance, Financial Crises, Profitability.

1.INTRODUCTION

A very fundamental prerequisite of public assurance in the banking system is that the depositors must consider that they can access their funds whenever they want. This belief gives the depositor's confidence that they are not incurring risk by depositing their money in the bank of any financial institution. As a result, depositors are also legitimately concerned about the banks liquidity position as bank managers, regulators and independent analyst. One of the important functions of bank is to provide liquidity to the customers hence it is vital for banks to maintain liquidity at a comfortable level. Banks liquidity is defined as an ability to raise certain amount of fund at a certain cost within a certain period. A banks liquidity position is considered better than other banks when it is in a position to raise funds at cheaper rate and at very small phase compared to other banks.

A liquidity requirement of an individual bank is related with depositors and borrowers in a period of time. Thus liquidity needs differ from bank to bank by looking into various customer profiles in bank. Therefore, every bank must assess its liquidity based on the nature and distribution of Assets and liabilities.

A bank is considered liquid whenever cash is demanded at those times it can meet all the demands in cash. Moreover, to improve the financial position the bank must avail the resources at a reasonable cost and time.

Liquidity Risk being one of the reasons for financial distress should not be ignored. Following the Basel Committee recommendations and framing an effective liquidity risk management system is the only way to fight out its ill effects. Banks and financial institutions all over the world are planning for such arrangements. India, although not systematically absent, is however, the best way to meet the existing financial imbalances caused due to liquidity matters. Indian financial system is set sure to boldly face all situations as it comes in the future. Overall, the public sector banks were very conservative in their liquidity risk management. With the opening of banking domain to global players in Indian environment and increasing penetration of private sector banks, such a high short-term liquidity would be adverse for the public sector banks in terms of profitability; overall, the private sector banks also had a comfortable short-term liquidity position. Private sector banks are managing their short-term liquidity better than the public sector banks. This could be a main feature that it is contributing the overall profitability of the private sector banks.

2. Data Base and Methodology

The complete study was based on the secondary data. The data for the study have been gathered from the Annual Reports and ALM reports of the chosen banks, reports from various sources of RBI such as RBI Bulletins, Banking Statistics - Basic statistical Returns, Statistical Tables concerning to Banks in India, tendency and growth of Banks in India, Indian Banks Association Bulletins(IBA), Publications and Seminar Papers of the National Institute of Bank Management, Base1 Committee Reports accessible by the Bank for worldwide agreement as well as additional existing publications in this area. Sites of RBI and chosen banks have likewise been used to accumulate the most up-to-date data. The collected statistics has been investigated with the

assistance of SPSS (Statistical Packages for Social Sciences) software and MS Excel was used for this reason.

2.2 Objectives of the study

1. To assess and compare the status of Asset Liability management of the selected public and private sector banks.
2. To assess and compare the liquidity position of the selected private and public sector banks.
3. To comment on the growth, progress and development of the selected public and private sector banks.

2.3 Research Design:

The study has built explorative research design which is as follows:

2.3.1 Variables of the study

Different ratios were calculated to determine the liquidity of banks under consideration where exposed to.

Formulation of Hypothesis

Null H0: $\mu_1 = \mu_1$

Alt H1: $\mu_1 \neq \mu_1$

OR

This t-test determines significance difference between average valued of liquidity of selected public banks and private banks. The hypothesis being tested which are as follow:

Null H0: $\mu_1 = \mu_1$

Alt H1: $\mu_1 \neq \mu_1$

OR

Null H0: There is no significant difference between Liquidity (Ratios) of selected public banks and private banks

Alt H1: There is significant difference between Liquidity (Ratios) of selected public banks and private banks

2.3.2 Selection of the Sampling Design:

Sample Size:

Present study restricted to ten bank units out of them five banks were chosen from the public sector and rest of five banks from new private sector banks based on their profitability, Market capitalization, Net Sales and Total Assets during the year 2011-12.

From Public sector Banks

1. State Bank of India
2. Punjab National Bank
3. Canara Bank
4. Bank of Baroda
5. Bank of India

From Private sector Banks

1. Housing Development Finance Corporation (HDFC)
2. Industrial credit and Investment Corporation of India (ICICI)
3. Axis bank
4. Kotak Mahindra bank
5. Youth Enterprise Scheme (Yes) Bank

2.3.3 Period of the Study

In order to analyze the changing perspectives, the study has been conducted for a duration of ten years, i.e. from 2011-12 to the year 2020-21. The base year has been taken as 2005 as in February 2005 Reserve Bank of India (RBI) issued first draft guidelines on Basel II norms and

insisted the banks to adopt the norm, in this context the ten year period starting from 2011-12 onwards to 2020-21 was considered while analyzing the data to compare the profitability and overall performance of the selected banks.

2.3.4 Data Collection and Data Sources

The study based on secondary data, so it has taken from the various available sources. The secondary data collected from the Annual Reports and ALM reports of the selected banks, various publications of RBI such as RBI Bulletins, Banks Statistics related to Banks of India, etc.

3.Data Analysis

The data was collected and tabulated in proper manner. As a part of research tabular analysis was used followed by graphical presentation shall form the part of findings in the research study

Statistical Tools and Techniques used

For the current study, numerous tools or techniques have been used for analyzing the financial data. These may be classified as under:

1. Accounting Tools/Techniques
2. Statistical Tools / Techniques

4. Review of Literature

B.L. Chandak (2014) through his study depicted liquidity and credits are the life blood of the economic activities. Liquidity and credit market imbalances can create crisis even when monetary fundamentals are solid. They cause instability and vulnerability which undermine the trust in trade and enterprise. It is felt that economic downturn as far as poor performance of industry, export and growing NPAs are essentially because to precise imbalances in liquidity and credit environment.

D. S. Patil, (2014) stated that right company governance is vital to proficient working of an element and for a banking entity. Consequently the requirement for expert administration and sound governance practice in urban credit cooperative banks in the present aggressive environment needs no prominence. The banks perform the key function of changing illiquid

assets to make it more liquid call for deposits. Setting it extra concretely banks carry out the function of making liquidity. The issue that emerges is that in specific situations this promotes to an assets liability mismatch that makes them subject to disappointment.

Morage, Prakash V (2015) Stated that the prime goal of the study was to learn the administration and control of different risks such as liquidity, profitability and interest rate risk in banks for a period of seven financial years i.e. from 2005-2012. In order to study the records statistical tools like ratios, and gap analysis was utilized. It was further discovered that on account of negative gap falling interest rate is more worthwhile while in positive gap rising interest rate is more beneficial to the bank it is found that the pattern of interest rate of Krishna Grameena Bank is raising throughout the years. In this circumstance positive Gap is ideal for the banks.

R Umarani and M Jayanthi (2015) stated that the banks are exposed to liquidity risk. The target behind all these measures is to make banks completely equipped to confront the developing difficulties. For this purpose State Bank of India and its associates were taken and analysis is done based on GAP analysis technique for measuring the liquidity Risk in these banks. Utilizing openly accessible information, the paper endeavored to assess the liquidity risk carried by the SBI and its Associate banks in the year 2011- 2012.

J Sopan and Abhijit Dutta (2018) show that among bank-specific factors, the size, profitability level, funding cost, and asset quality have a negative impact on Indian banks' liquidity risk. The capitalization rate and the deposit rate, however, have a favorable impact. Inflation rate and GDP growth rate are among the macroeconomic factors that are proven to have a positive and negative relationship with bank liquidity, respectively.

Manju Rajan Babu (2019) stated ICICI bank reported improved financial results in the years following the merger. Although, the examination of acquiring banks also revealed contradictory results. After the post-merger years, the banking industry's financial performance in India has improved.

5.Data Analysis & Interpretation

In order to analyse the liquidity position in selected public and private sector banks various liquidity ratios are calculated from the period between 2011-12 - 2020-21.

Liquidity Management of Banks:

Table – 1

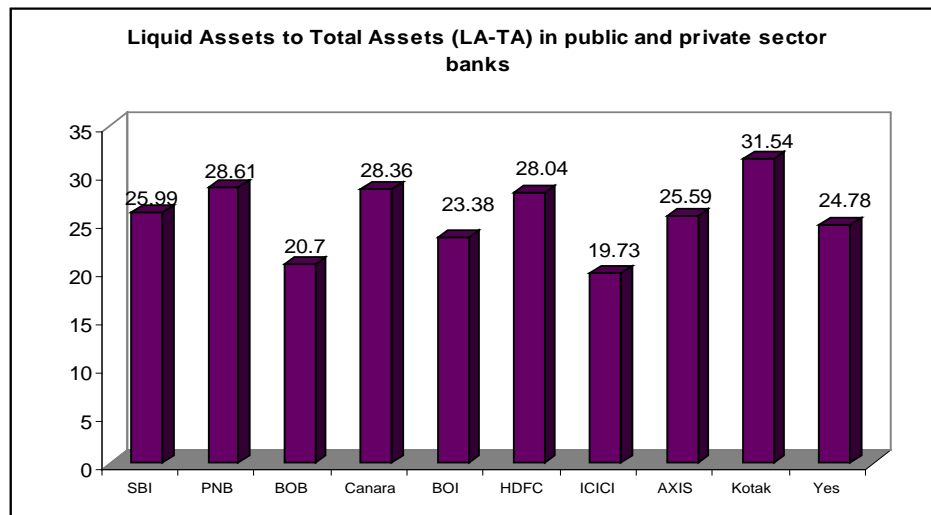
Liquid Assets to Total Assets (LA-TA) in public and private sector banks

	Public Sector Banks					Private Sector Banks				
Bank	SBI	PNB	BOB	Canara	BOI	HDFC	ICICI	AXIS	Kotak	Yes
2011-12	32.36	39.95	24.93	29.51	25.23	31.22	23.87	28.55	27.42	21.62
2012-13	26.49	30.77	22.21	28.35	22.39	30.39	24.97	28.66	33.21	22.89
2013-14	26.90	29.56	19.17	31.18	25.45	23.77	26.20	24.99	34.58	26.82
2014-15	29.49	28.67	21.90	27.70	22.93	35.83	21.33	26.09	34.68	26.01
2015-16	27.43	28.58	22.15	29.78	26.35	29.91	19.60	24.17	33.89	24.13
2016-17	26.60	27.39	22.08	27.81	25.47	28.39	15.93	29.63	32.61	23.43
2017-18	23.20	25.86	20.31	28.48	22.53	26.99	17.34	24.19	30.64	25.14
2018-19	21.39	26.24	21.11	27.99	22.42	24.41	16.51	25.55	30.92	27.12
2019-20	21.94	24.47	16.91	25.89	20.19	24.41	15.65	22.47	27.47	24.74
2020-21	24.09	24.59	16.26	26.92	20.87	25.04	15.88	21.63	30.00	25.88
Mean	25.99	28.61	20.70	28.36	23.38	28.04	19.73	25.59	31.54	24.78
CV	-7.68	-10.43	-5.51	-2.81	-3.59	-6.12	-10.06	-5.15	-2.43	2.47
Growth	-0.93	-1.26	-0.67	-0.34	-0.44	-0.74	-1.22	-0.62	-0.29	0.30
Rank	8	10	6	3	4	7	9	5	2	1

Given above in Table No. 1 based on Liquid assets to total assets(LA-TA) found, Kotak Bank (31.54 percent) has occupied top position with its average value followed by Punjab National Bank (28.61 percent) and Canara Bank (28.36 Percent) among all public and private sector banks. ICICI bank (19.73 percent) has least average in LA-TA among all banks under study. These banks are taking high risk, as their LA-TA found to be lowest. Out of private sector banks, Kotak bank (31.54 percent) has highest LA-TA and ICICI bank (19.73 percent) has lowest LA-TA. Whereas, out of public sector banks, Punjab national bank (28.61 percent) has highest LA-TA and Bank of Baroda (20.70 percent) has lowest LA-TA. The LA-TA of public sector banks lies “between” 28.61 percent to 20.70 percent while private sector banks have range “between” 31.54 percent to 19.73 percent.

It is further observed that the highest growth rate of LA-TA found at Yes Bank (0.30 percent), while Punjab National Bank (-1.46 percent) and ICICI Bank (-1.42 percent), State Bank of India (-0.98) are indicating highest negative growth rate in LA-TA among all banks. In the distribution, the ranks pertaining to LA-TA of the banks based on the growth rate shows first two ranks possessed by private sector banks i.e. Yes bank and Kotak bank followed by Canara and Bank of Baroda with 3rd & 4th ranks.

The coefficient of variation revealed hardly the variation exists with respect to the above-mentioned indicator. It shows that only one bank in private sector, i.e. Yes bank indicates positive CV in LA-TA, whereas in public sector all banks i.e. SBI, PNB, BOB, Canara, BOI banks are indicating negative CV in LA-TA. More of the private sector banks LA-TA is better than the public sector banks.

Chart: 1**Liquid Assets to Total Assets (LA-TA) in public and private sector banks****Hypothesis Testing:****Null Hypothesis (H_0):**

There is no significant difference between Liquid Asset to Total Asset ratio (Ratio) of selected public banks and private banks

Alternate Hypothesis (H_1):

There is significant difference between Liquid Asset to total asset ratio (Ratio) of selected public banks and private banks

Table – 2**The performance of public and private sector banks in Liquid Assets to Total Assets**

Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
SBI	10	25.98	3.42	1.08	23.54	28.43	21.39	32.36
PNB	10	28.60	4.49	1.42	25.38	31.82	24.47	39.95
BOB	10	20.70	2.63	0.83	18.82	22.58	16.26	24.93
CANARA	10	28.36	1.50	0.47	27.28	29.43	25.89	31.18
BOI	10	23.38	2.11	0.66	21.87	24.89	20.19	26.35
HDFC	10	28.03	3.86	1.42	25.26	30.80	23.77	35.83
ICICI	10	19.72	4.09	1.49	16.79	22.65	15.65	26.20
AXIS	10	25.59	2.67	0.84	23.67	27.50	21.63	29.63
KOTAK	10	31.54	2.70	0.85	29.60	33.47	27.42	34.68
YES	10	24.77	1.77	0.56	23.50	26.04	21.62	27.12
Total	100	25.67	4.57	0.45	24.76	26.58	15.65	39.95

Given Table No.2, representing the average performance, found Kotak bank (31.54) is having the highest value in liquidity assets to total assets against the ICICI bank which has the lowest with an average of 19.72. On the other hand, among the five-selected public sector banks the highest average performance in liquidity assets to total assets it was observed that Punjab National Bank (28.60) and lowest performance observed by Bank of Baroda (20.70). Whereas, highest average performance among private sector banks it was observed that Kotak bank (31.54) and lowest performance was observed by the ICICI Bank (19.72).

Table – 3

**Level of significance between and within groups of public and private sector banks in
Liquid Assets to Total Assets**

ANNOVA	Sum of Squares	Df	Mean Square	f	Sig.
Between Groups	1220.63	9	135.62	14.285**	0.000
Within Groups	854.47	90	9.49		
Total	2075.11	99			

**Significant @ 1% level; *Significant @ 5% level.

From the above Table No. 3 the level of difference between and within groups of different public and private sector banks in liquidity assets to total assets found significant at 1 percent. Whereas in sum of squares between the groups is 1220.63 and within the groups is 854.47 and the f-value is 14.285. This indicates that there is significant difference between and within the groups of public and private sector banks in liquidity assets to total assets.

Table – 4

Mean difference between public and private sector banks in Liquid Assets to Total Assets

Mean		Df	No of observe.		Std. Dev.		t-value	p-value
Public	Private		Public	private	Public	Private		
25.41	25.94	98	50	50	4.20	4.95	0.573	0.568

**Significant @ 1% level; *Significant @ 5% level.

The above Table No. 4 shows that the given data analysis found the mean difference between public and private banks in liquid assets to total assets. It shows that average performance of liquid assets to total assets of private sector banks (25.94) found significant higher than the public sector banks (25.41) and the respective standard deviations are 4.95 and 4.20. With this distribution of data is calculated t-value is 0.573. This infers that there is no significant

difference between public and private sector banks in performance of liquid assets to total assets. Because the p-value is 0.568 where private sector banks mean value is higher than public sector banks mean value.

Table – 5

Liquid Asset to Total Deposit (Cash Deposit) (LA-TD) in public and private sector banks

	Public Sector Banks					Private Sector Banks				
Bank	SBI	PNB	BOB	Canara	BOI	HDFC	ICICI	AXIS	Kotak	Yes
2011-12	5.7	19.55	3.56	6.78	5.95	5.93	5.41	6.06	6.38	3.03
2012-13	6.68	8.85	5.13	6.39	6	7.59	8.12	7.93	6.83	4.74
2013-14	9.59	9.17	6.16	8.67	7.83	12.46	12.02	8.34	10.25	7.23
2014-15	7.49	8.13	5.51	5.37	4.7	9.47	8.03	8.02	6.36	7.9
2015-16	7.49	8.13	5.51	5.37	4.7	9.47	8.03	8.02	6.36	7.9
2016-17	7.62	7.35	5.62	6.7	6.79	9.25	13.62	6.7	8.73	7.45
2017-18	5.18	4.87	5.63	5.44	4.71	6.08	8.01	4.86	5.23	4.75
2018-19	5.47	4.57	2.84	4.33	5.75	4.94	6.51	5.86	4.33	4.99
2019-20	5.81	4.76	3.47	4.84	4.78	6.02	6.54	5.97	4.68	5.58
2020-21	5.81	4.88	3.08	4.93	4.58	6.46	6.85	6.11	5.13	5.92
Mean	6.68	8.03	4.65	5.88	5.58	7.77	8.31	6.79	6.43	5.95
CV	-1.63	-9.71	-1.60	-2.38	-1.46	-2.71	-1.01	-1.82	-2.85	0.54
Growth	-0.20	-1.18	-0.19	-0.29	-0.18	-0.33	-0.12	-0.22	-0.34	0.07
Rank	5	10	4	7	3	8	2	6	9	1

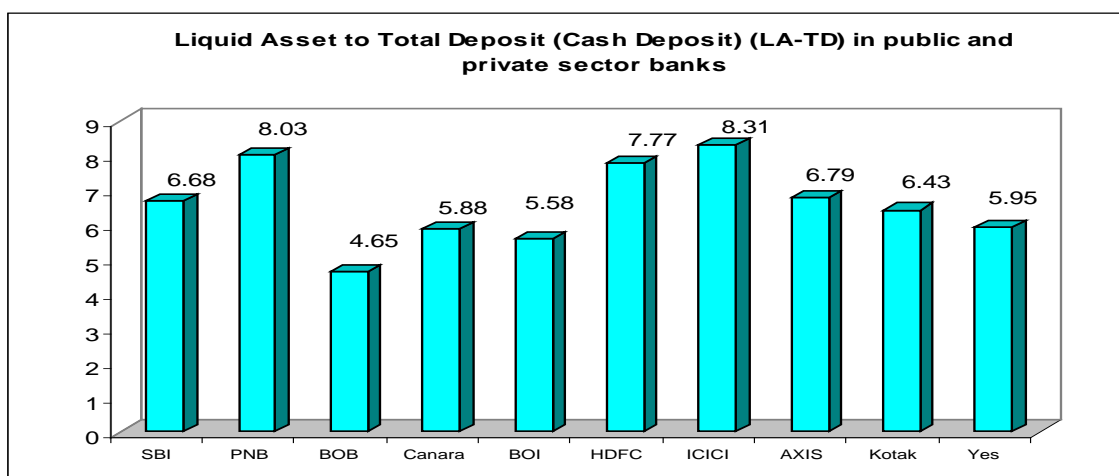
The Table No. 5 concluded that the basis of Liquid assets to total deposits (LA-TD) it is observed that, ICICI Bank (8.31 percent) has occupied top position with its average value followed by Punjab National Bank (8.03 percent) and HDFC Bank (7.77 Percent) among all public and private sector banks. Bank of Baroda (4.65 percent) has least average in LA-TD

among all banks under study. This bank is taking high risk, as their LA-TD is found to be lowest. Out of private sector banks, ICICI bank (8.31 percent) has highest LA-TD and Yes bank (5.95 percent) has lowest LA-TD. Whereas, out of public sector banks, Punjab national bank (8.03 percent) has highest LA-TA and Bank of Baroda (4.65 percent) has lowest LA-TD. The LA-TD of public sector banks lies “between” 8.03 percent to 4.65 percent while private sector banks have range “between” 8.31 percent to 5.95 percent.

It is further observed that the highest growth rate of LA-TD is Yes Bank (0.07 percent), while Punjab National Bank (-1.18 percent) and Kotak Bank (-0.34 percent), HDFC Bank (-0.33) are indicating highest negative growth rate in LA-TD among all banks. In the distribution, the ranks pertaining to LA-TD of the banks based on the growth rate shows first two ranks possessed by private sector banks i.e. Yes bank and ICICI bank followed by Bank of India and Bank of Baroda with 3rd & 4th ranks.

The coefficient of variation reveals that there hardly exists variation in LA-TD. It shows that only one bank in private sector, i.e. Yes bank indicates positive CV in LA-TD, whereas in public sector all banks i.e. SBI, PNB, BOB, Canara, BOI banks are indicating negative CV in LA-TD. Most of the private sector banks LA-TD is better than the public sector banks.

Chart: 2
Liquid Asset to Total Deposit Ratio in selected public and private sector banks



Hypothesis Testing:**Null Hypothesis (H₀):**

There is no significance difference between Liquid Asset to Total Asset ratio (Ratio) of selected public banks and private banks

Alternate Hypothesis (H₁):

There is significance difference between Liquid Asset to total asset ratio (Ratio) of selected public banks and private banks

Table – 6**The performance of public and private sector banks in Liquid Asset to Total Deposit**

Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
SBI	10	6.68	1.36	0.43	5.70	7.66	5.2	9.6
PNB	10	8.02	4.44	1.40	4.84	11.40	4.6	19.6
BOB	10	4.65	1.45	0.39	3.75	5.55	2.8	6.2
CANARA	10	5.88	1.47	0.40	4.97	6.79	4.3	8.7
BOI	10	5.57	1.09	0.34	4.79	6.36	4.6	7.8
HDFC	10	7.76	2.33	0.73	6.09	9.43	4.9	12.5
ICICI	10	8.31	2.56	0.81	6.48	10.14	5.4	13.6
AXIS	10	6.78	1.40	0.38	5.92	7.64	4.9	8.3
KOTAK	10	6.42	1.84	0.58	5.10	7.74	4.3	10.3
YES	10	5.94	1.63	0.51	4.78	7.11	3.0	7.9
Total	100	6.60	2.31	0.23	6.14	7.06	2.8	19.6

According to the above Table No. 6, the average performance of ICICI bank (8.31) is found with highest value in liquid asset to total deposit against the Bank of Baroda which has the lowest value in liquid asset to total deposit with an average of 4.65. On the other hand, among

the five-selected public sector banks the highest average performance in liquid asset to total deposit among public sector banks observed by Punjab National Bank (8.02) and lowest performance observed by Bank of Baroda (4.65). Whereas, highest average performance among private sector banks observed by the ICICI bank (8.31) and lowest performance observed by the Yes Bank (5.94).

Table – 7

Level of significance between and within groups of public and private sector banks in Liquid Asset to Total Deposit

ANNOVA	Sum of Squares	Df	Mean Square	f	Sig.
Between Groups	121.84	9	13.53	2.971**	0.004
Within Groups	410.06	90	4.55		
Total	531.90	99			

**Significant @ 1% level; *Significant @ 5% level.

From the above Table No.7 the level of difference between and within groups of different public and private sector banks in liquid asset to total deposit found significant at 1percent. Whereas in sum of squares between the groups is 121.84 and within the groups is 410.06 and the f-value is 2.971. This indicates that there is significant difference between and within the groups of public and private sector banks in liquid asset to total deposit.

Table – 8

Mean difference between public and private sector banks in Liquid Asset to Total Deposit

Mean		Df	No of observe.		Std. Dev.		t-value	p-value
Public	Private		Public	private	Public	Private		
6.17	7.05	98	50	50	2.47	2.09	1.922	0.058

**Significant@ 1% level, *Significant@ 5% level.

A look into the above Table No. 8 shows the mean difference between public and private banks in liquidity assets to total deposits. It shows that average performance of liquidity assets to total deposits of private sector banks (7.05) found significant higher than the public sector banks (6.17) and the respective standard deviations are 2.09 and 2.47. With this distribution of data is calculated t-value 1.922 is not found significant because p-value is 0.058. This infers that there is no significant difference between public and private sector banks in performance of liquidity assets to total deposits, whereas the private sector banks mean value is higher than public sector banks mean value.

Table – 9

5.4 Advances to Deposit Ratio (Credit Ratio) (ADR) in public and private sector banks

	Public Sector Banks					Private Sector Banks				
Bank	SBI	PNB	BOB	Canara	BOI	HDFC	ICICI	AXIS	Kotak	YES
2011-12	68.84	62.35	63.96	67.99	69.38	62.84	88.54	55.63	96.68	82.71
2012-13	77.45	69.06	66.94	69.18	70.99	68.74	84.97	62.73	99.3	47.38
2013-14	77.55	71.79	70.18	75.31	75.64	62.94	92.3	68.08	94.69	71.04
2014-15	73.11	73.75	73.23	97.07	75.33	69.24	99.98	69.48	162.76	76.71
2015-16	78.58	74.84	71.17	72.16	73.33	88.11	89.69	82.81	86.97	82.81
2016-17	79.9	76.25	73.87	72.07	72.18	76.02	90.45	74.65	94.27	77.75
2017-18	82.14	77.39	74.76	71.52	74.85	78.06	97.71	76.26	100.9	76.09
2018-19	85.17	78.13	71.68	69.51	76.88	80.14	99.25	77.58	97.75	73.2
2019-20	86.84	78.06	69.54	69.95	76.86	81.79	100.71	80.03	92.18	72.71
2020-21	84.47	76.6	69.54	70.55	76.6	81.71	104.72	84.71	88.99	79.33
Mean	79.41	73.82	70.49	73.53	74.20	74.96	94.83	73.20	101.45	73.97
CV	13.65	11.76	4.16	-3.87	5.48	18.08	14.23	22.13	-14.10	7.54
Growth	1.65	1.43	0.50	-0.47	0.66	2.19	1.72	2.68	-1.71	0.91
Rank	4	5	8	9	7	2	3	1	10	6

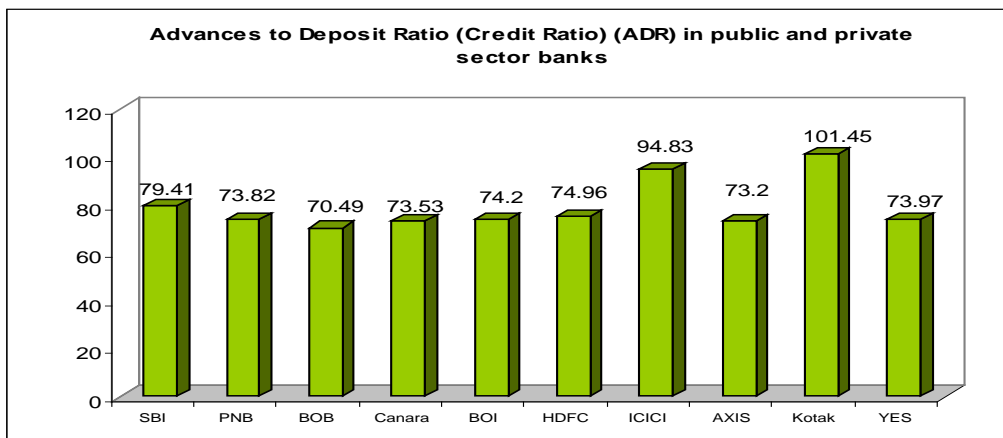
Table No. 9 is based on Advances to deposit ratio (ADR) found, Kotak Bank (101.45 percent) has occupied top position with its average value followed by ICICI Bank (94.83 percent) and State Bank of India (79.41 Percent) among all public and private sector banks. Bank of Baroda bank (70.49 percent) has least average in ADR among all banks under study. This bank is taking high risk, as their ADR found lowest. Out of private sector banks, Kotak bank (101.45 percent) has highest ADR and Axis bank (73.20 percent) has lowest ADR. Whereas, out of public sector banks, State bank of India (79.41 percent) has highest ADR and Bank of Baroda (70.49 percent) has lowest ADR. The ADR of public sector banks lies “between” 79.41 percent to 70.49 percent while private sector banks have range “between” 101.45 percent to 73.20 percent.

It is further observed that the highest growth rate of ADR found at Axis Bank (2.68 percent), while Kotak Bank (-1.71 percent) and Canara Bank (-0.47 percent), are indicating negative growth rate in ADR among all banks. In the distribution, the ranks pertaining to ADR of the banks based on the growth rate shows first three ranks possessed by private sector banks i.e. Axis, HDFC, ICICI followed by State Bank of India and Punjab National Bank with 4th & 5th ranks.

The coefficient of variation revealed hardly the variation exists with respect to the above-mentioned indicator. ADR shows that in private sector only one bank, i.e. Kotak bank indicates negative CV in ADR, whereas in public sector one bank i.e. Canara bank indicates negative CV in ADR. Most of the private sector banks ADR is better than the public sector banks.

Chart: 3

Advances to Deposit ratio of selected public and private sector banks



Hypothesis Testing:**Null Hypothesis (H₀):**

There is no significant difference between Advances to Deposit ratio (Ratio) of selected public banks and private banks

Alternate Hypothesis (H₁):

There is significant difference between Advances to Deposit ratio (Ratio) of selected public banks and private banks

Table – 10

**The performance of public and private sector banks in Advances to Deposit Ratio
(Credit Ratio)**

Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
SBI	10	79.40	5.58	1.76	75.40	83.40	68.84	86.84
PNB	10	73.82	4.97	1.57	70.26	77.37	62.35	78.13
BOB	10	70.48	3.26	1.03	68.14	72.82	63.96	74.76
CANARA	10	73.53	8.51	2.69	67.43	79.62	67.99	97.07
BOI	10	74.20	2.62	.831	72.32	76.08	69.38	76.88
HDFC	10	74.95	8.59	2.71	68.80	81.11	62.84	88.11
ICICI	10	94.83	6.45	2.04	90.21	99.45	84.97	104.72
AXIS	10	73.19	9.19	2.90	66.62	79.77	55.63	84.71
KOTAK	10	101.44	21.98	6.95	85.72	117.17	86.97	162.76
YES	10	73.97	10.15	3.20	66.71	81.43	47.38	82.81
Total	100	78.98	13.56	1.35	76.29	81.67	47.38	162.76

Table No. 10 shows that the average performance, from which it is observed Kotak bank (101.44) had highest value in advances to deposit ratio against the Bank of Baroda had lowest with an average of 70.48. On the other hand, among the five-selected public sector banks the highest average performance in advances to deposit ratio among public sector banks it was observed by State bank of India (79.40) and lowest performance observed by Bank of Baroda (70.48). Whereas, highest average performance among private sector banks observed by the Kotak bank (101.44) and lowest performance observed by the Axis Bank (73.19).

Table – 11

Level of significance between and within groups of public and private sector banks in Advances to Deposit Ratio (Credit Ratio)

ANNOVA	Sum of Squares	Df	Mean Square	f	Sig.
Between Groups	9822.53	9	1091.39	11.70**	0.000
Within Groups	8391.82	90	93.24		
Total	18214.35	99			

**Significant @ 1% level; *Significant @ 5% level.

Table No.11 shows the level of difference between and within groups of different public and private sector banks in advances to deposit ratio found significant at 1percent. Whereas in sum of squares between the groups is 9822.53 and within the groups is 8391.82 and the f-value is 11.70. This indicates that there is significant difference between and within the groups of public and private sector banks in advanced to deposit ratio.

Table – 12

Mean difference between public and private sector banks in Advances to Deposit Ratio (Credit Ratio)

Mean		Df	No of observe.		Std. Dev.		t-value	p-value
Public	Private		Public	private	Public	Private		
74.29	83.68	98	50	50	5.94	17.07	3.674**	0.000

**Significant @ 1% level; *Significant @ 5% level.

The above Table No. 12 shows that from the given data analysis is found the mean difference between public and private banks in advances to deposit ratio. It shows that average performance of advances to deposit ratio of private sector banks (83.68) was found significant higher than the public sector banks (74.29) and the respective standard deviations are 17.07 and 5.94. With this distribution of data, is calculated t-value is 3.674 found 1 percent significant. This infers that there is a significant difference between public and private sector banks in performance of advances to deposit ratio where private sector banks mean value is higher than public sector banks mean value.

Table – 13

Advances to Total Assets Ratio (ATAR) in public and private sector banks

	Public Sector Banks					Private Sector Banks				
Bank	SBI	PNB	BOB	Canara	BOI	HDFC	ICICI	AXIS	Kotak	YES
2011-12	52.98	59.47	52.84	59.8	58.05	47.7	58.14	44.87	62.39	82.71
2012-13	59.54	60.04	58.42	59.35	63.45	51.45	56.83	50.34	54.85	47.38
2013-14	57.76	62.65	59.41	59.4	63.37	47.63	56.43	54.45	54.93	71.04
2014-15	56.25	62.91	62.18	62.93	60.86	53.95	57.55	55.21	57.9	76.71
2015-16	59.99	64	61.57	63.96	60.68	56.56	49.86	60.99	55.49	82.81
2016-17	61.83	64.12	63.81	62.88	64.71	57.68	53.26	58.23	57.67	74.8
2017-18	64.96	64.47	64.24	62.13	63.68	57.83	51.88	59.43	59.51	77.28
2018-19	66.76	63.45	59.98	57.75	63.68	58.79	54.07	57.84	57.91	70.19
2019-20	67.48	63.07	59.71	60.08	64.46	61.64	56.96	60.03	60.54	74.98
2020-21	63.48	63.07	59.32	60.23	66.55	61.9	59.97	60.16	62.41	82.86
Mean	61.10	62.73	60.15	60.85	62.95	55.51	55.50	56.16	58.36	74.08
CV	11.15	3.12	3.93	-0.14	4.88	13.38	-0.40	11.61	3.10	9.20
Growth	1.35	0.38	0.48	-0.02	0.59	1.62	-0.05	1.41	0.38	1.12
Rank	3	7	6	9	5	1	10	2	8	4

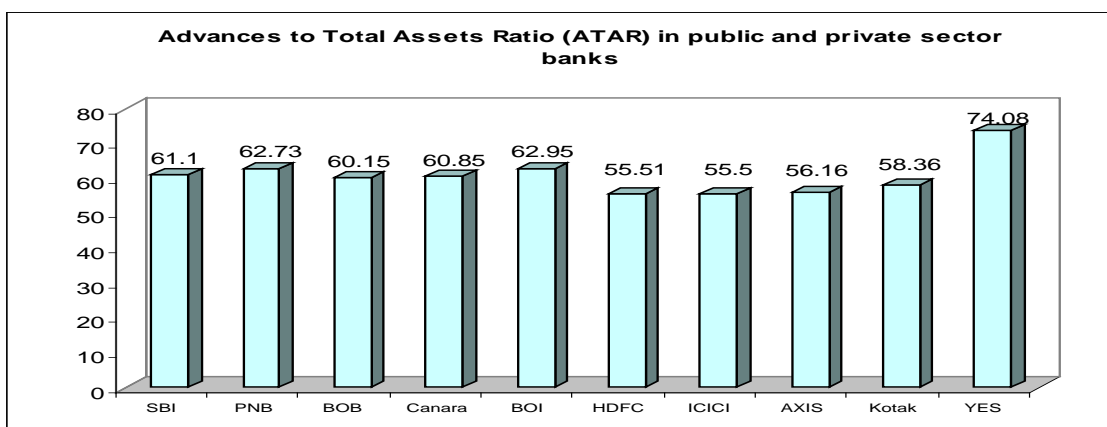
Given Table No. 13 shows that the mean difference of Advances to total assets ratio (ATAR) was found, Yes Bank (74.08 percent) has occupied top position with its average value followed by Bank of India (62.95 percent) and Punjab National Bank (62.73 Percent) among all public and private sector banks. ICICI bank (55.50 percent) has least average in ATAR among all banks under study. This bank is taking high risk, as their ATAR found lowest. Out of private sector banks, Yes bank (74.08 percent) has highest ATAR and ICICI bank (55.50 percent) has lowest ATAR. Whereas, out of public sector banks, Bank of India (62.95 percent) has highest ATAR and Bank of Baroda (60.15 percent) has lowest ATAR. The ATAR of public sector banks lies “between” 62.95 percent to 60.15 percent while private sector banks have range “between” 74.08 percent to 55.05 percent.

It is further observed that the highest growth rate of ATAR found at HDFC Bank (1.62 percent), while ICICI Bank (-0.05 percent) and Canara Bank (-0.02 percent), which indicates negative growth rate in ATAR among all banks. In the distribution, the ranks pertaining to ATAR of the banks based on the growth rate shows first two ranks possessed by private sector banks i.e. HDFC and Axis followed by State Bank of India and Yes Bank with 3rd & 4th ranks.

The coefficient of variation reveals that there hardly exists any variation in ATAR. It shows that only one bank in private sector, i.e. ICICI bank indicates negative CV in ATAR, whereas in public sector one bank i.e. Canara bank indicates negative CV in ATAR. It was observed that most of the private sector banks ATAR is better than the public sector banks.

Chart: 4

Advances to Total Asset Ratio of selected public and Private sector banks in India



Hypothesis Testing:**Null Hypothesis (H₀₄):**

There is no significance difference between Advances to Total Asset ratio (Ratio) of selected public banks and private banks

Alternate Hypothesis (H₁₄):

There is significance difference between Advances to total asset ratio (Ratio) of selected public banks and private banks

Table – 14**The performance of public and private sector banks in Advances to Total Assets Ratio**

Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
SBI	10	61.10	4.69	1.48	57.74	64.45	52.98	67.48
PNB	10	62.72	1.67	0.52	61.52	63.92	59.47	64.47
BOB	10	60.14	3.23	1.02	57.83	62.46	52.84	64.24
CANARA	10	60.85	1.99	0.63	59.42	62.27	57.75	63.96
BOI	10	62.94	2.43	0.77	61.40	64.69	58.05	66.55
HDFC	10	55.51	5.18	1.64	51.80	59.22	47.63	61.90
ICICI	10	55.49	3.12	0.98	53.25	57.73	49.86	59.97
AXIS	10	56.15	5.13	1.62	52.48	59.82	44.87	60.99
KOTAK	10	58.36	2.82	0.89	56.33	60.38	54.85	62.41
YES	10	74.07	10.45	3.30	66.59	81.55	47.38	82.86
Total	100	60.73	6.90	0.69	59.36	62.10	44.87	82.86

The above Table No. 14 representing the average performance of Yes bank (74.07) found highest value in advances to total assets ratio against the ICICI bank has found lowest with an average of 55.49. On the other hand, among the five-selected public sector banks the highest average performance in advances to total assets ratio among public sector banks observed by Bank of India (62.94) and lowest performance observed by Bank of Baroda (60.14). Whereas, highest average performance among private sector banks observed by the Yes bank (74.07) and lowest performance observed by the ICICI Bank (55.49).

Table – 15

Level of significance between and within groups of public and private sector banks in Advances to Total Assets Ratio

ANNOVA	Sum of Squares	Df	Mean Square	f	Sig.
Between Groups	2686.81	9	298.53	13.238**	0.000
Within Groups	2029.63	90	22.55		
Total	4716.45	99			

**Significant @ 1% level; *Significant @ 5% level.

The above Table No. 15 concludes the level of difference between and within groups of different public and private sector banks in advances to total assets ratio found significant at 1percent. Whereas in sum of squares between the groups is 2686.81 and within the groups is 2029.63 and the f-value is 13.238. This indicates that there is significant difference between and within the groups of public and private sector banks in advances to total assets ratio.

Table – 16

Mean difference between public and private sector banks in Advances to Total Assets Ratio

Mean		Df	No of observe.		Std. Dev.		t-value	p-value
Public	Private		Public	private	Public	Private		
61.56	59.92	98	50	50	3.09	9.24	1.187	0.238

**Significant @ 1% level; *Significant @ 5% level.

The Table No.16 shows the mean difference between public and private banks in advances to total assets ratio. It shows that average performance of advances to total assets ratio of public sector banks (61.56) found significant higher than the private sector banks (59.92) and the respective standard deviations are 3.09 and 9.24. With this distribution of data is calculated t-value is 1.187, here not found significant because p-value is 0.238. This infers that there is no significant difference between public and private sector banks in performance of advances to total assets ratio, where public sector banks mean value is higher than the private sector banks mean value.

Table – 17

5.6 Loan & advances to core- deposit ratio (LACDR) in public and private sector banks

	Public Sector Banks					Private Sector Banks				
Bank	SBI	PNB	BOB	Canara	BOI	HDFC	ICICI	AXIS	Kotak	YES
2011-12	1.37	1.44	1.47	1.35	1.58	1.45	1.77	1.11	1.93	1.65
2012-13	1.54	1.38	1.33	1.38	1.41	1.37	1.69	1.45	1.98	1.53
2013-14	1.55	1.43	1.4	1.51	1.51	1.45	1.84	1.36	1.89	1.42
2014-15	1.46	1.47	1.46	1.94	1.51	1.38	1.99	1.38	2.4	1.53
2015-16	1.57	1.49	1.42	1.44	1.46	1.5	1.79	1.65	1.73	1.65
2016-17	1.62	1.54	1.16	1.44	1.42	1.53	1.92	1.49	2.04	1.49
2017-18	1.66	1.55	1.84	1.42	1.56	1.58	1.79	1.54	2.02	1.54
2018-19	1.73	1.57	1.35	1.36	1.52	1.61	1.84	1.55	1.89	1.4
2019-20	1.73	1.55	1.39	1.43	1.55	1.65	2.04	1.63	1.86	1.49
2020-21	1.64	15.2	1.38	1.39	1.54	1.62	2.14	1.74	1.76	1.65
Mean	1.59	2.84	1.40	1.47	1.51	1.47	1.88	1.47	1.95	1.54
CV	0.27	6.39	0.10	-0.08	0.04	0.39	0.27	0.48	-0.16	-0.03
Growth	0.03	0.77	0.01	-0.01	0.00	0.05	0.03	0.06	-0.02	0.00
Rank	5	1	6	9	7	3	4	2	10	8

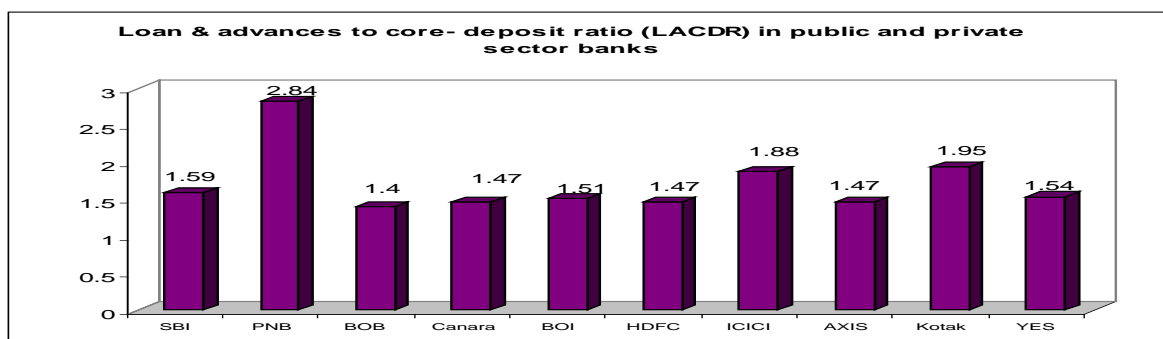
The above Table No. 17 shows Loan & advances to core- deposit ratio (LACDR) and found, Punjab National Bank (2.84 percent) has occupied top position with its average value followed by Kotak bank (1.95 percent) and ICICI Bank (1.88 Percent) among all public and private sector banks. Bank of Baroda (1.40 percent) has least average in LACDR among all banks under study. This bank is taking high risk, as its LACDR is found lowest. Out of private sector banks, Kotak bank (1.95 percent) has highest LACDR and HDFC bank (1.47 percent) has lowest LACDR. Whereas, out of public sector banks, Punjab National Bank (2.84 percent) has highest LACDR and Bank of Baroda (1.40 percent) has lowest LACDR. The LACDR of public sector banks lies “between” 2.84 percent to 1.40 percent while private sector banks have range “between” 1.95 percent to 1.47 percent.

It is further observed that the highest growth rate of LACDR is found at Punjab National Bank (0.77 percent), while Kotak Bank (-0.02 percent) and Canara Bank (-0.01 percent), indicating negative growth rate in LACDR among these banks. In the distribution, the ranks pertaining to LACDR of the banks based on the growth rate shows 1st rank possessed by public sector bank i.e. Punjab National bank followed by 2nd, 3rd & 4th ranks are possessed by Axis, HDFC, ICICI banks.

The coefficient of variation revealed hardly the variation exists with respect to the above-mentioned indicator. It shows that only one bank in private sector, i.e. Kotak bank indicate negative CV in LACDR, whereas in public sector one bank i.e. Canara bank indicate negative CV in LACDR. Most of the private sector banks LACDR are better than the public sector banks.

Chart: 5

Loan and Advances to core- deposit ratio of selected public and private sector banks



Hypothesis Testing:**Null Hypothesis (H_0):**

There is no significance difference between Loan & advances to core-deposit ratio (Ratio) of selected public banks and private banks

Alternate Hypothesis (H_1):

There is significance difference between Loan & advances to core- deposits ratio (Ratio) of selected public banks and private banks

Table – 18

The performance of public and private sector banks in Loan & advances to core- deposit ratio

Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
SBI	10	1.58	0.11	0.03	1.50	1.66	1.37	1.73
PNB	10	2.84	4.34	1.37	0.26	5.94	1.44	15.20
BOB	10	1.40	0.17	0.05	1.47	1.52	1.16	1.84
CANARA	10	1.46	0.17	0.05	1.34	1.58	1.35	1.94
BOI	10	1.50	0.05	0.01	1.46	1.54	1.41	1.58
HDFC	10	1.47	0.15	0.04	1.36	1.58	1.45	1.65
ICICI	10	1.88	0.13	0.04	1.78	1.98	1.69	2.14
AXIS	10	1.47	0.19	0.06	1.33	1.60	1.11	1.74
KOTAK	10	1.95	0.18	0.05	1.81	2.08	1.73	2.40
YES	10	1.53	0.09	0.02	1.46	1.60	1.40	1.65
Total	100	1.71	1.38	0.13	1.43	1.98	1.11	15.20

From the Table No.18, the average performance of Punjab National bank (2.84) found highest value in loan and advances to core-deposit ratio, Bank of Baroda has found lowest with an average of 1.40. On the other hand, among the five-selected public sector banks the highest average performance in loan and advances to core-deposit ratio it was observed by Punjab National Bank (2.84) and lowest performance observed by Bank of Baroda (1.40). Whereas, highest average performance among private sector banks observed by the Kotak bank (1.95) and lowest performance observed by the HDFC Bank (1.47).

Table – 19

Level of significance between and within groups of public and private sector banks in Loan & advances to core- deposit ratio

ANNOVA	Sum of Squares	Df	Mean Square	f	Sig.
Between Groups	17.24	9	1.91	1.005	0.442
Within Groups	171.59	90	1.90		
Total	188.83	99			

**Significant @ 1% level; *Significant @ 5% level.

From the above Table No.19 shows the level of difference between and within groups of different public and private sector banks in loan and advances to core-deposit ratio is not found significant. Whereas in sum of squares between the groups is 17.24 and within the groups is 171.59 and the f-value is 1.005. This indicates that there is no significant difference between and within the groups of public and private sector banks in loan and advances to core-deposit ratio because the significant value is 0.442.

Table – 20

Mean difference between public and private sector banks in Loan & advances to core- deposit ratio

Mean		Df	No of observe.		Std. Dev.		t-value	p-value
Public	Private		Public	private	Public	Private		
1.76	1.66	98	50	50	1.94	0.26	0.354	0.724

**Significant @ 1% level; *Significant @ 5% level.

The above Table No. 20 shows that the given data analysis found the mean difference between public and private banks in loan & advances to core-deposit ratio. It shows that average

performance of loan & advances to core-deposit ratio of public sector banks (1.76) found significant higher than the private sector banks (1.66) and the respective standard deviations are 1.94 and 0.26. With this distribution of data is calculated t-value is 0.354, here is not found significant because p-value is 0.724. This infers that there is no significant difference between selected public and private sector banks in performance of loan & advances to core-deposit ratio, where public sector banks mean value is higher than the private sector banks mean value.

Table – 21

Advances to investment ratio (AIR) in public and private sector banks

	Public Sector Banks					Private Sector Banks				
Bank	SBI	PNB	BOB	Canara	BOI	HDFC	ICICI	AXIS	Kotak	YES
2011-12	1.61	1.82	1.71	2.14	2.05	1.43	2.04	1.03	2.22	1.78
2012-13	2.26	2.13	2.39	2.17	2.39	1.53	2.14	1.37	1.59	2.04
2013-14	2.19	2.21	2.43	2.15	2.71	1.8	2.02	1.77	1.7	1.85
2014-15	1.96	2.4	2.69	2.39	2.72	1.68	2.11	1.76	1.82	1.74
2015-16	2.21	2.41	2.77	2.43	2.47	2.14	1.49	2.17	1.66	2.17
2016-17	2.55	2.54	3.2	2.52	2.48	2.25	1.61	1.82	1.71	1.82
2017-18	2.77	2.39	3.45	2.27	2.86	2.04	1.59	1.82	1.81	1.36
2018-19	2.97	2.37	2.7	1.99	3.02	2.16	1.69	1.73	1.68	1.09
2019-20	3.03	2.42	3.31	2.37	3.19	2.5	1.91	2.02	2.08	1.35
2020-21	2.62	2.51	3.34	2.27	3.44	2.19	2.07	2.12	2.17	1.62
Mean	2.42	2.32	2.80	2.27	2.73	1.95	1.87	1.76	1.84	1.68
CV	1.06	0.46	1.46	0.08	1.00	0.92	-0.22	0.70	0.15	-0.58
Growth	0.13	0.06	0.15	0.01	0.12	0.11	-0.03	0.08	0.02	-0.07
Rank	2	6	1	8	3	4	9	5	7	10

Given the Table No. 21 shows information of Advances to investment ratio (AIR) found, Bank of Baroda (2.80 percent) has occupied top position with its average value followed by Bank of India (2.73 percent) and State Bank of India (2.42 Percent) among all public and private sector

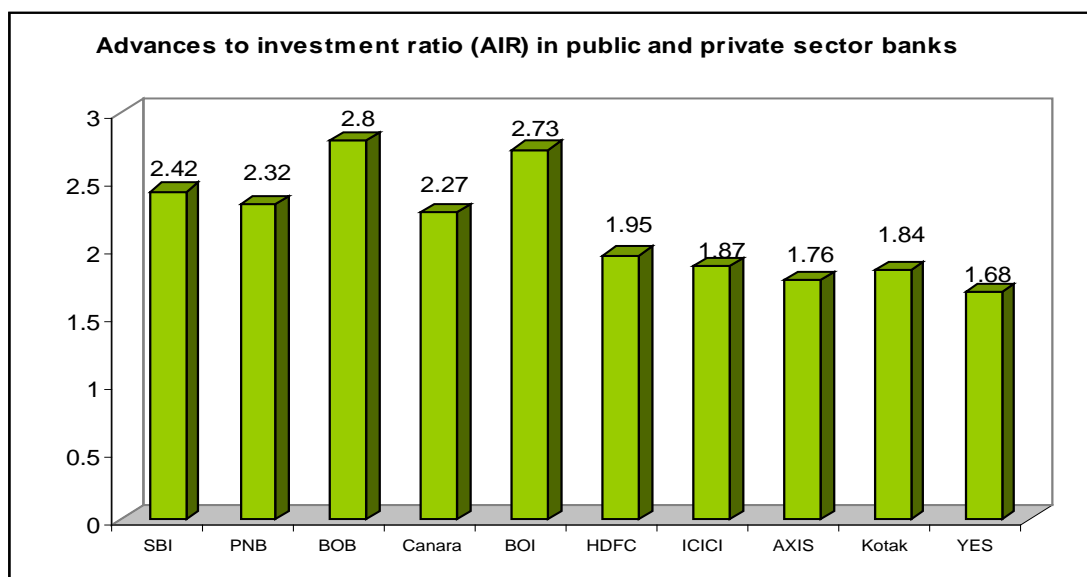
banks. Yes bank (1.68 percent) has least average in AIR among all banks under study. This bank is taking high risk, as their AIR found lowest. Out of private sector banks, HDFC bank (1.95 percent) has highest AIR and Yes bank (1.68 percent) has lowest AIR. Whereas, out of public sector banks, Bank of Baroda (2.80 percent) has highest AIR and Canara Bank (2.27 percent) has lowest AIR. The AIR of public sector banks lies “between” 2.80 percent to 2.27 percent while private sector banks have range “between” 1.95 percent to 1.68 percent.

It is further observed that the highest growth rate of AIR found at Bank of Baroda (0.15 percent), while Yes Bank (-0.07 percent) and ICICI Bank (-0.03 percent), are indicating negative growth rate in AIR among all banks. In the distribution, the ranks pertaining to AIR of the banks based on the growth rate shows first three ranks possessed by public sector banks i.e. BOB, SBI and BOI followed by HDFC and Axis Bank with 4th & 5th ranks.

The coefficient of variation there hardly exits any dissimilarity in AIR. It shows that two bank in private sector, i.e. Yes, ICICI banks are indicating negative CV in AIR, whereas in public sector all banks i.e. BOB, SBI, BOI, PNB and Canara banks are indicating positive CV in AIR. Most of the public sector banks AIR is better than the private sector banks.

Chart: 6

Advances to Investment ratio of selected public and private sector banks



Hypothesis Testing:**Null Hypothesis (H₀):**

There is no significance difference between Advances to Investment ratio (Ratio) of selected public banks and private banks

Alternate Hypothesis (H₁):

There is significance difference between Advances to Investment ratio (Ratio) of selected public banks and private banks

Table – 22**The performance of public and private sector banks in Advances to investment ratio**

Bank	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound	Lower Bound	Upper Bound
SBI	10	2.41	0.45	0.14	2.09	2.74	1.61	3.03
PNB	10	2.32	0.21	0.06	2.16	2.47	1.82	2.54
BOB	10	2.79	0.54	0.17	2.41	3.18	1.71	3.45
CANARA	10	2.27	0.16	0.05	2.15	2.38	1.99	2.52
BOI	10	2.73	0.41	0.13	2.43	3.02	2.05	3.44
HDFC	10	1.95	0.38	0.12	1.67	2.22	1.43	2.50
ICICI	10	1.86	0.24	0.07	1.69	2.04	1.49	2.14
AXIS	10	1.76	0.34	0.10	1.51	2.00	1.03	2.17
KOTAK	10	1.84	0.22	0.07	1.68	2.00	1.59	2.22
YES	10	1.68	0.33	0.10	1.44	1.91	1.09	2.17
Total	100	2.16	0.50	0.05	2.06	2.26	1.03	3.45

According to the above Table No.22, the average performance of Bank of Baroda (2.79) found highest value in advanced to investment ratio against the Yes bank has found lowest with an average of 1.68. On the other hand, among the five-selected public sector banks in advanced to

investment ratio the highest average performance among public sector banks observed by Bank of Baroda (2.79) and lowest performance observed by Canara bank (2.27). Whereas, highest average performance among private sector banks observed by the HDFC bank (1.95) and lowest performance observed by the Yes Bank (1.68).

Table –23

Level of significance between and within groups of public and private sector banks in Advances to investment ratio

ANNOVA	Sum of Squares	Df	Mean Square	f	Sig.
Between Groups	14.56	9	1.619	13.168**	0.000
Within Groups	11.06	90	0.123		
Total	25.63	99			

**Significant @ 1% level; *Significant @ 5% level.

From the above Table No.23 the level of difference between and within groups of different public and private sector banks in advanced to investment ratio found significant at 1percent. Whereas in sum of squares between the groups is 14.56 and within the groups is 11.06 and the f-value is 13.168. This indicates that there is a significant difference between and within the groups of public and private sector banks.

Table – 24

Mean difference between public and private sector banks in Advances to investment ratio

Mean		Df	No of observe.		Std. Dev.		t-value	p-value
Public	Private		Public	private	Public	Private		
2.51	1.82	98	50	50	0.43	0.31	9.133**	0.000

**Significant @ 1% level; *Significant @ 5% level.

The above Table No.24 shows that the given data found the mean difference between public and private banks in advances to investment ratio. It shows that average performance of advances to investment ratio of public sector banks (2.51) found significant higher than the private sector banks (1.82) and the respective standard deviations are 0.43 and 0.31. With this distribution of data is calculated t-value is 9.133 found 1 percent significant. This infers that there is a

significant difference between public and private sector banks in performance of advances to investment ratio, where public sector banks mean value is higher than the private sector banks mean value.

6.Conclusion

In this paper various ratios were employed to measure the liquidity position of selected public and private sector bank from for a period of ten years i.e. from 2011-12 to 2020-21. Liquidity position of private sector bank is better compared to public sector banks in this tenure.

The result shows that banks liquidity has a positive impact on banks performance. The study concludes that banks must try to maintain high level of liquidity to enhance performance. When a bank holds adequate liquid assets their profitability also improves. Adequate liquidity helps the bank to minimize financial crisis and liquidity risk. On the other hand, if a bank maintains excess liquid assets profit of the banks could diminish as liquid assets usually have very little or no interest generating capacity.

From the analysis it is found that Axis Bank is very high on its liquidity followed by HDFC Bank, Canara Bank, whereas Punjab National Bank, ICICI Bank, Kotak Mahindra Bank and Yes Bank are equally maintaining their liquidity, followed by Bank of Baroda, State Bank of India and less liquidity is maintained by Bank of India. Therefore, the results show that liquidity risk will cause to decrease in the performance of bank.

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