

## Analysis of Financial Position and Performance of Public and Private Sector Banks in India: A Comparative Study on SBI and HDFC Bank

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### Abstract

Indian banking sector is an important component of Indian financial system. It has a strong impact on the economic development and growth of the nation. The present study is made to measure the financial position, performance and efficiency of the largest public sector bank (SBI) and private sector bank (HDFC). The objective of the study is to identify financial position and performance of the selected banks and to examine whether any significant difference exists in their performance. The study is based on secondary data which has been collected from annual reports of the selected banks covering a period of five years from 2013-14 to 2017-18. The CAMEL model has been used to assess the financial strength of the selected banks. T-test has been used on the important parameters like capital adequacy, asset quality, management efficiency, earnings ability and liquidity to draw the conclusion the study.

**Key Words:** Indian Banking Sector, Financial Performance and CAMEL Model.

### Introduction

The improvement financial system is the key to the economic development of a nation. The Banking sector is one of the vital components of the financial system. The sector provides financial services not only to the industry but also to the agriculture and household sectors. It also plays important role in formation of capital in the economy. India Banking sector has a great contribution in the economic growth of the nation. Reserve Bank of India (RBI) is the apex body of the Indian Banking sector. It ensures the stability in the monetary system of the country. Since independence, RBI has initiated several measures to improve more access to financial services through financial education, awareness and technological up gradations in an affordable manner. The performance of the banking sector is supposed to be a crucial economic active of Indian economy. So, the reforms in banking sector are intended to make the banks more efficient. However, the Banking sector is facing alarming challenges like rising in competition, level of Non-Performing Assets and weakening asset quality. These may have a negative impact on the economy of the nation.

This study deals with the analysis of the financial position and performance of public sector bank (SBI) and private sector bank (HDFC) in India.

The article has been divided into eight sections. Section II covers literature review. Research gap has been mentioned in section III. Section IV and V contain objective and materials & methods of the study. Financial performance of SBI and HFDC bank has been highlighted in the section VI. Analysis and discussion is made in section VII. Finally, section VIII concludes the study along with findings.

### Literature Review

Several studies have been conducted by many academicians and researchers in this related area of performance analysis of public sector and private sector banks in India. Some of these literatures are shown below:

Goel and Rekhi (2013) attempted to measure the relative performance of Indian public sector and private sector banks. They concluded that the efficiency and profitability are interrelated and the performances of private sector banks are better than public sector banks in India.

Karri, H.K. et al. (2015) analyzed the performance of banks from the important parameters like capital adequacy, asset quality, management

efficiency, earning ability and liquidity with the help of CAMEL model.

Nagarkar (2015) examined the performance of major five public, private and foreign sector banks with the help of principle component analysis technique. He found that commercial banks mostly depend on deposits for providing credit. So, Commercial banks need to check their credit appraisal process to reduce the non-performing assets and regain the faith of depositors as key to banks' success.

Mistry and Savani (2015) classified Indian private sector banks on the basis of their financial characteristics and analyzed their financial performance. They found that return on assets and interest income have a negative correlation with operational efficiency whereas, positive correlation with asset utilization and asset size. They also revealed that operational efficiency, asset management and bank size have an impact on the financial performance of the Indian private sector banks.

Sodhi and Waraich (2016) made a fundamental analysis with the help of key financial ratios to identify the value of stocks of the selected banks and their investment opportunities. They found that private and foreign banks are trying to improve their performance due to increasing competition in the banking sector.

Majumder and Rahman (2016) measured the financial performance of the fifteen selected banks in Bangladesh and identified the significant difference in their performances for the period 2009-2013. They suggested that the lower ranking banks should take necessary steps to improve their weaknesses.

Balaji and Kumar (2016) examined and compared the overall financial performance of selected public and private sector banks in India during the period 2011-12 to 2015-16 with help of mean and T-Test. They concluded that public sector banks must redefine their strategies by considering their strengths, weakness and operating market.

Taqi and Mustafa (2018) analyzed the growth and performance of Punjab National Bank and HDFC bank for the period 2006-07 to 2015-16. They made quantitative analysis and found that PNB is more financially sound than HDFC but in context of

deposits and expenditure HDFC has better managing efficiency.

### **Research Gap**

From the above literature review, it appears that over the years, various attempts have been made by the researchers and academicians to evaluate the financial position and performance of public sector banks and private sector banks from different aspects of CAMEL model. But there is no seminal work made on the analysis of the financial position of SBI and HDFC from public sector banks and private sector banks respectively in India. So, the present study has tried to highlight this untouched area.

### **Objective of the Study**

The objective of the study is to analyze and compare the financial position and performance of public sector bank (SBI) and private sector bank (HDFC) in India. For the purpose of this study, SBI from public sector banks and HDFC bank from private sector banks have been selected as they have the largest market capitalization at present.

### **Database**

The present study is analytical in nature. It is purely based on the secondary data. The data have been collected from various research articles, journals, annual reports of SBI and HDFC and web based resources.

### **Methodology**

The CAMEL model is followed to measure the relative financial position and performance of the banks. RBI adopted the model in 1996 by the recommendations of Padmanabham Committee (1995). Apart from CAMEL model, statistical tools like Mean and t-test have been used to assess the performance of banks from each of the important parameters like capital adequacy, asset quality, management efficiency, earning ability and liquidity to draw the logical conclusions.

### **Study Period**

The study covers a period of five years from 2013-14 to 2017-18.

### **Hypothesis**

$H_0$ : There is no significant difference in the financial position and performance of SBI and HDFC bank in India

$H_1$ : There is significant difference in the financial position and performance of SBI and HDFC bank in India

## Financial Performance

Financial Performance of SBI and HDFC bank has been shown below with the help of following tables by using various parameters like total income, net interest income, operating profit and net profit over the last five years from the year 2013-14 to 2017-18.

**Table-1: Total income of SBI and HDFC Bank during the year 2013-14 to 2017-18**

Rs. in Crore						
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Mean
SBI	154904	174973	191843	210979	265100	199560
HDFC	49055	57466	70973	81602	95462	70911.6

Source: Annual Reports of SBI and HDFC of various years

From the above table it has been observed that the total income of both SBI and HDFC has been increasing over the years but the increasing rate of HDFC bank is higher than SBI. But the mean of total income of SBI is higher than HDFC.

**Table-2: Net interest income of SBI and HDFC Bank during the year 2013-14 to 2017-18**

Rs. in Crore						
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Mean
SBI	49282	55015	57195	61860	74854	59641.2
HDFC	18483	22396	27591	33139	40095	28340.8

Source: Annual Reports of SBI and HDFC of various years

From the above table is seen that net interest income of both SBI and HDFC has been increasing over the years and mean of net interest income of SBI is higher than HDFC.

**Table- 3: Operating profit of SBI and HDFC Bank during the year 2013-14 to 2017-18**

Rs. in Crore						
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Mean
SBI	32109	39537	43258	50848	59511	45052.6
HDFC	14360	17404	21364	25732	32625	22297

Source: Annual Reports of SBI and HDFC of various years

From the above table is observed that operating profit has a hiking trend for both SBI and HDFC over the years and mean of operating profit of SBI is higher than HDFC.

**Table-4: Net profit of SBI and HDFC Bank during the year 2013-14 to 2017-18**

Rs. in Crore						
Particulars	2013-14	2014-15	2015-16	2016-17	2017-18	Mean
SBI	10891	13102	9951	10484	-6547	7576.2
HDFC	8478	10216	12296	14550	17487	12605.4

Source: Annual Reports of SBI and HDFC of various years

From the above table it is observed that net profit of SBI has a fluctuating trend i.e. both increasing and decreasing trend over the last five years from 2013-14 to 2017-18 but SBI has incurred net loss in the year 2017-18. On the other hand, HDFC has a continuous increasing trend in its net profit over the last five years. Mean of net profit of HDFC is also higher than SBI.

## Analysis and Discussion

The CAMEL model and its parameters are shown and discussed below on the basis of secondary data to measure the financial performance of the selected banks.

**Table-5: CAMEL Model**

Short Form	Parameters of CAMEL	Ratio of Measuring CAMEL Parameters
C	Capital Adequacy	Capital Adequacy Ratio Debt Equity Ratio
A	Asset Quality	Asset Turnover Ratio Loan Ratio Net NPA to Net Advance Ratio
M	Management Efficiency	Credit Deposit Ratio Net Profit per Employee
E	Earning Ability	Net Profit Ratio Dividend per Share Earnings per Share Return on Net worth Return on Assets Interest Spread Ratio
L	Liquidity	Current Ratio Liquid Assets to Total Assets Ratio Liquid Assets to Total Deposit Ratio

**Capital Adequacy**

It indicates whether the bank has enough capital to absorb unexpected losses. It maintains the depositors' confidence and prevents the bank from bankruptcy. It indicates the overall financial condition of banks and the ability of management to meet the requirement of additional capital. The following ratios are considered in the present study for the assessment of capital adequacy of the selected banks.

**Capital Adequacy Ratio (CAR):**

This ratio measures the ability of the bank regarding absorption of losses arising from the risk weighted assets. It is a measurement of Tire-1 and Tire-II capital to the aggregate of risk weighted

assets.  $CAR = (Tire\ 1\ Capital + Tire\ 2\ Capital) / Risk\ Weighted\ Assets$ :

**Table- 6: Group Statistics of CAR**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Capital Adequacy Ratio	SBI	5	12.6540	.47474	.21231
	HDFC	5	15.5520	.91396	.40873

Source: Compiled by researcher

**Table- 7: Independent Samples Test on CAR**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Capital Adequacy Ratio	Equal variances assumed	2.031	.192	-6.292	8	.000	-2.89800	.46059	-3.96011	-1.83589
	Equal variances not assumed			-6.292	6.012	.001	-2.89800	.46059	-4.02447	-1.77153

Source: Compiled by researcher

Observation: From the above table-7, it has been observed that the significant p value is 0.192 greater than 0.05 than equal variance assumed is 0.001 less than 0.05 than Null hypothesis is Rejected.

**Debt-Equity Ratio:**

Bank's financial leverage is measured by this ratio. It is the proportion of total external liabilities to net worth. The ratio indicates how much portion of the bank's business is financed by debt and how much portion is financed through equity. Higher ratio signifies less protection for creditors and depositors of the bank.  $DE\ Ratio = Debt / Net\ worth$

**Table- 8: Group Statistics on Debt-Equity Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Debt Equity Ratio	SBI	5	1.7452	.28220	.12621
	HDFC	5	.8700	.17743	.07935

Source: Compiled by researcher

**Table- 9: Independent Samples Test on Debt-Equity Ratio**

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Debt Equity Ratio	Equal variances assumed	.572	.471	5.871	8	.000	.87520	.14908	.53143	1.21897
	Equal variances not assumed			5.871	6.735	.001	.87520	.14908	.51986	1.23054

Source: Compiled by researcher

Observation: From the above table-9, it is seen that the significant p value is 0.471 greater than 0.05 than equal variance assumed is 0.001 less than 0.05 than Null hypothesis is Rejected.

**Asset Turnover Ratio**

It determines the efficiency of the bank in asset utilization. It is measured by dividing sales with total assets.

**Asset Quality**

It indicates the types of advance made by the bank to generate interest income. The bank provides credit at a lower rate to the highly rated companies compare to lower rated doubtful companies. It determines the nature of debtors of bank. This ratio helps the bank to decide the financial risk and potential losses attached with their various assets. The following ratios are considered in this study to assess the asset quality of the selected banks.

**Table- 10: Group Statistics on Asset Turnover Ratio**

Group Statistics					
Bank	N	Mean	Std. Deviation	Std. Error Mean	
Asset Turnover Ratio	SBI	5	8.1184	.50527	.22596
	HDFC	5	9.6282	.43096	.19273

Source: Compiled by researcher

**Table- 11: Independent Samples Test on Asset Turnover Ratio**

Independent Samples Test		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Asset Turnover Ratio	Equal variances assumed	.113	.745	-5.084	8	.001	-1.50980	.29699	-2.19467	-.82493
	Equal variances not assumed			-5.084	7.806	.001	-1.50980	.29699	-2.19764	-.82196

Source: Compiled by researcher

Observation: From the above, it is seen that the significant p value is 0.745 greater than 0.05 than equal variance assumed is 0.001 less than 0.05 than Null hypothesis is Rejected.

### Loan Ratio

The ratio measures the financial position of banks and its ability to meet outstanding loans. It is calculated by dividing amount of loans with total assets.

**Table- 12: Group Statistics on Loan Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Loan Ratio	SBI	5	11.2340	1.54089	.68911
	HDFC	5	8.6594	1.67965	.75116

Source: Compiled by researcher

**Table- 13: Independent Samples Test on Loan Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Loan Ratio	Equal variances assumed	.003	.959	2.526	8	.035	2.57460	1.01937	.22393	4.92527
	Equal variances not assumed			2.526	7.941	.036	2.57460	1.01937	.22090	4.92830

Source: Compiled by researcher

Observation: From the above, it is seen that the significant p value is 0.959 greater than 0.05 than equal variance assumed is 0.036 less than 0.05 then Null hypothesis is Rejected.

### Net NPA to Net Advance Ratio

The ratio measures the proportion of bad loans of the bank out of total advances given. Higher ratio signifies the bank's inability to recover the loan and that leads to huge capital losses. So, lower ratio is expected to be positive for bank. It is calculated by dividing total NPA with total advances.

**Table- 14: Group Statistics on Net NPA to Net Advance Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Net NPA to Net Advance Ratio	SBI	5	3.5880	1.40033	.62625
	HDFC	5	.3060	.06025	.02694

Source: Compiled by researcher

**Table- 15: Independent Samples Test on Net NPA to Net Advance Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Net NPA to Net Advance Ratio	Equal variances assumed	6.181	.038	5.236	8	.001	3.28200	.62683	1.83654	4.72746
	Equal variances not assumed			5.236	4.015	.006	3.28200	.62683	1.54418	5.01982

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.038 lower than 0.05 than equal variance assumed is 0.006 less than 0.05 then null hypothesis is rejected.

**Management Efficiency**

The growth and survival of bank is ensured by the management efficiency. It evaluates the management quality to assign premium to better quality and discount to the poor quality management. This parameter analyses the efficiency of the management in generating business and maximizing profits. The following ratios are considered in the present study to assess the management efficiency of the selected banks.

**Credit Deposit Ratio**

This ratio shows the proportion of lending out of its total deposit mobilization. It indicates the ability of the bank to convert its deposits into high earning advances. It is calculated by dividing total advances with total customer deposits.

**Table- 16: Group Statistics on Credit Deposit Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Credit Deposit Ratio	SBI	5	.8040	.06195	.02770
	HDFC	5	.8366	.02011	.00899

Source: Compiled by researcher

**Table- 17: Independent Samples Test on Credit Deposit Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Credit Deposit Ratio	Equal variances assumed	7.287	.027	-1.119	8	.296	-.03260	.02913	-.09977	.03457
	Equal variances not assumed			-1.119	4.834	.316	-.03260	.02913	-.10825	.04305

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.027 lower than 0.05 than equal variance assumed is 0.316 greater than 0.05 then null hypothesis is accepted.

**Net Profit per Employee**

It reveals the productivity and efficiency of human resources of bank. It is arrived at by dividing net profit with total number of employees.

**Table- 18:Group Statistics on Net Profit Per Employee**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Net Profit Per Employee	SBI	5	.0364	.03415	.01527
	HDFC	5	.1460	.03847	.01720

Source: Compiled by researcher

**Table- 19: Independent Samples Test on Net Profit per Employee**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper

									Lower	Upper
Net Profit Per Employee	Equal variances assumed	.122	.736	-4.764	8	.001	-.10960	.02301	-.16265	-.05655
	Equal variances not assumed			-4.764	7.889	.001	-.10960	.02301	-.16278	-.05642

Source: Compiled by researcher

Observation: it is seen that the significant p value is 0.736 greater than 0.05 then equal variance assumed is 0.001 less than 0.05 then null hypothesis is rejected.

### Earning Ability

It reflects the profitability of a bank. It also explains the sustainability and growth of earning in future. Higher earnings indicate the healthy performance of a bank. Generation of adequate earnings is the key to exits in long run for a bank. The following ratios are considered in the present study for the assessment of earning ability of the selected banks.

### Net Profit Ratio

It shows the operational efficiency of a business. Increasing ratio indicates better performance and

decreasing ratio shows inefficiency in management and excessive operational expenses. It is calculated by dividing net profit with total income.

**Table- 20: Group Statistics on Net Profit Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Net Profit Ratio	SBI	5	4.9866	2.97580	1.33082
	HDFC	5	17.7064	.42391	.18958

Source: Compiled by researcher

**Table- 21: Independent Samples Test on Net Profit Ratio**

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Net Profit Ratio	Equal variances assumed	3.565	.096	-9.462	8	.000	-12.71980	1.34425	-15.81966	-9.61994	
	Equal variances not assumed			-9.462	4.162	.001	-12.71980	1.34425	-16.39536	-9.04424	

Source: Compiled by researcher

Observation: it is seen that the significant p value is 0.096 greater than 0.05 then equal variance assumed is 0.001 less than 0.05 then null hypothesis is rejected.

### Dividend per Share

It indicates the dividend earned by each shareholder in hand. Higher the ratio higher is the operational efficiency of the business. It is calculated by dividing dividend in equity share capital with number of equity shares.

**Table- 22: Group Statistics on Dividend per Share**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Dividend per Share	SBI	5	7.7400	12.51231	5.59568
	HDFC	5	9.6700	2.43043	1.08692

Source: Compiled by researcher



**Table- 23: Independent Samples Test on Dividend per Share**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Dividend per Share	Equal variances assumed	4.199	.075	-.339	8	.744	-1.93000	5.70026	-15.07483	11.21483
	Equal variances not assumed			-.339	4.301	.751	-1.93000	5.70026	-17.32854	13.46854

Source: Compiled by researcher

Observation: it is seen that the significant p value is 0.075 greater than 0.05 than equal variance assumed is 0.751 greater than 0.05 then null hypothesis is accepted.

**Earnings per Share**

It indicates return earned by each shareholder. This ratio measures the market worth of the shares of a business. Higher ratio shows better prospects of the bank. It is calculated by dividing earning available to equity shareholders with numbers of equity shares.

**Table- 24 :Group Statistics on Earnings per Share**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Earnings per Share	SBI	5	38.6100	66.77521	29.86278
	HDFC	5	50.2800	12.65570	5.65980

Source: Compiled by researcher

**Table- 25: Independent Samples Test on Earnings per Share**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Earnings per Share	Equal variances assumed	4.118	.077	-.384	8	.711	-11.67000	30.39439	-81.75959	58.41959
	Equal variances not assumed			-.384	4.287	.719	-11.67000	30.39439	-93.87637	70.53637

Source: Compiled by researcher

Observation: it is seen that the significant p value is 0.077 greater than 0.05 than equal variance assumed is 0.719 greater than 0.05 then null hypothesis is accepted.

**Return on Net worth**

This ratio shows the relation between net profit and capital employed of the business. It determines operational efficiency and overall profitability of the business. Maximization of return of net worth is the prime objective any

business. The result of ratio indicates the extent of the achievement of that objective. It is calculated by dividing net profit with net worth.

**Table- 26: Group Statistics on Return on Net worth**

Group Statistics					
Bank	N	Mean	Std. Deviation	Std. Error Mean	
Return on Net worth	SBI	5	6.3740	4.00815	1.79250
	HDFC	5	17.1212	1.35134	.60434

Source: Compiled by researcher

**Table- 27: Independent Samples Test on Return on Net worth**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Return on Net worth	Equal variances assumed	2.867	.129	-5.681	8	.000	-10.74720	1.89163	-15.10932	-6.38508
	Equal variances not assumed			-5.681	4.898	.003	-10.74720	1.89163	-15.64049	-5.85391

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.129 greater than 0.05 than equal variance assumed is 0.003 less than 0.05 then null hypothesis is rejected.

**Return on Asset**

It signifies the operational efficiency in asset utilization by the management and profitability on the assets of the business. It is a general measure of managerial performance to assess the

conversion of assets into earnings. It is calculated by dividing net profit with total assets.

**Table- 28: Group Statistics on Return on Asset**

Group Statistics					
Bank	N	Mean	Std. Deviation	Std. Error Mean	
Return on Asset	SBI	5	.4020	.35096	.15695
	HDFC	5	1.9500	.05831	.02608

Source: Compiled by researcher

**Table- 29: Independent Samples Test on Return on Asset**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Return on Asset	Equal variances assumed	3.325	.106	-9.730	8	.000	-1.54800	.15910	-1.91489	1.18111

Equal variances not assumed			-9.730	4.221	.000	-1.54800	.15910	-1.98078	-1.11522
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Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.106 greater than 0.05 than equal variance assumed is 0.000 less than 0.05 then null hypothesis is rejected.

### Interest Spread Ratio

Spread is the difference between the interest incomes and interest expended. Higher ratio indicates better earning ability of the business. It is determined as a percentage of total assets.

**Table- 30: Group Statistics on Interest Spread Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Interest Spread Ratio	SBI	5	2.4598	.25147	.11246
	HDFC	5	3.8096	.05489	.02455

Source: Compiled by researcher

**Table- 31: Independent Samples Test on Interest Spread Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Interest Spread Ratio	Equal variances assumed	12.009	.009	-11.726	8	.000	-1.34980	.11511	-1.61524	1.08436
	Equal variances not assumed			-11.726	4.380	.000	-1.34980	.11511	-1.65874	1.04086

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.009 less than 0.05 than equal variance assumed is 0.000 less than 0.05 then null hypothesis is rejected.

### Liquidity

The liquidity measures the bank's ability to meet the short term financial obligations. Adequate liquidity position can be achieved when the business can obtain sufficient liquid fund either by converting its assets into cash or increasing liability. Higher ratio indicates that the business is wealthier. The following ratios are considered to assess the liquidity of the selected banks.

### Current Ratio

It measures the sufficiency of current assets to pay off the current liabilities. It helps the bank to determine its working capital requirement. The ratio is calculated by dividing current assets with current liabilities.

**Table- 32: Group Statistics on Current Ratio**

Group Statistics					
Bank		N	Mean	Std. Deviation	Std. Error Mean
Current Ratio	SBI	5	2.0426	.28010	.12527
	HDFC	5	2.0932	.80919	.36188

Source: Compiled by researcher

**Table- 33: Independent Samples Test on Current Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Current Ratio	Equal variances assumed	2.173	.179	-.132	8	.898	-.05060	.38295	-.93368	.83248
	Equal variances not assumed			-.132	4.945	.900	-.05060	.38295	-1.03830	.93710

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.179 greater than 0.05 then equal variance assumed is 0.9 greater than 0.05 then null hypothesis is accepted.

**Liquid Assets to Total Assets Ratio**

It measures overall liquidity position of a business. It is calculated by dividing liquid assets with total assets.

**Table- 34 :Group Statistics on Liquid Assets to Total Assets Ratio**

Group Statistics					
Bank	N	Mean	Std. Deviation	Std. Error Mean	
Liquid Assets to	SBI	5	6.7926	.83126	.37175
Total Assets Ratio	HDFC	5	7.3830	2.54349	1.13749

Source: Compiled by researcher

**Table- 35: Independent Samples Test on Liquid Assets to Total Assets Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Liquid Assets to Total Assets Ratio	Equal variances assumed	4.180	.075	-.493	8	.635	-.59040	1.19669	-3.34998	2.16918
	Equal variances not assumed			-.493	4.845	.643	-.59040	1.19669	-3.69646	2.51566

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.075 greater than 0.05 then equal

variance assumed is 0.643 greater than 0.05 then null hypothesis is accepted.

### Liquid Assets to Total Deposit Ratio

It indicates the ability of the bank to meet its deposit obligations with available liquid funds. Higher ratio signifies better ability of the bank. It is calculated by dividing liquid assets with total deposit.

**Table- 36: Group Statistics on Liquid Assets to Total Deposit Ratio**

Group Statistics					
Bank	N	Mean	Std. Deviation	Std. Error Mean	
Liquid Asset to Total Deposit Ratio	SBI	5	8.8996	1.15317	.51571
	HDFC	5	9.8290	3.51469	1.57182

Source: Compiled by researcher

**Table- 37: Independent Samples Test on Liquid Assets to Total Deposit Ratio**

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Liquid Asset to Total Deposit Ratio	Equal variances assumed	4.254	.073	-.562	8	.590	-.92940	1.65426	-4.74413	2.88533
	Equal variances not assumed			-.562	4.851	.599	-.92940	1.65426	-5.22130	3.36250

Source: Compiled by researcher

Observation: it is observed that the significant p value is 0.073 greater than 0.05 then equal variance assumed is 0.599 greater than 0.05 then null hypothesis is accepted.

### Findings and Conclusions

From the above analysis the following outcomes are found on the financial performance of SBI and HDFC bank:

- The capital and capital adequacy ratio for both the banks are more than Basel norms for bank. So, they are satisfactory for both SBI and HDFC banks.
- SBI has higher debt equity ratio of than HDFC. SBI is trying to taking advantage of financial leverage and is also exposed to greater financial risk. HDFC is quite risk averse and trying to provide high margin of safety to the depositors.
- HDFC bank has higher asset turnover ratio. So, it has the ability to generate more revenue with respect to given

amount of total assets. SBI bank is less efficient in utilization of their assets.

- The loan ratio of SBI bank is higher than HDFC bank. So, SBI is taking more risks compared to HDFC.
- The net NPA to net advance ratio is higher for SBI than HDFC. It can be concluded that efficiency in management of advances given to customers are not good for SBI.
- The credit deposit ratio for HFDC is higher than SBI. It means that SBI is providing more credits to their customers from their deposits. It is clear that SBI is taking advantages of leverage and also generating more risks for the depositors.
- Net Profit per Employee is higher in HDFC bank than SBI. It may be concluded that the efficiency and productivity of human resources of HDFC bank is better than SBI.
- Net profit ratio is also high for HDFC bank. So, HDFC has a better profitability and better management efficiency than SBI.

- Both the dividend per share and earnings per share are high for HDFC. So, HFDC has better profit potentiality to satisfy their stakeholders than SBI.
- Return on Net worth is the overall barometer of overall performance of any institution. HDFC bank has high Return on Net worth ratio. It may be concluded that the performance of SBI is poor compared to HDFC bank.
- Return on assets is high for HDFC bank. It may be concluded that profitability on assets and managerial performance in asset utilization is better in HDFC bank than SBI.
- HDFC bank has higher interest spread ratio than SBI. It may be commented that HDFC bank has higher net interest earnings over the given amount of assets.
- HDFC bank has higher result for all the liquidity ratios like Current ration, liquid asset to total assets ratio and liquid assets to total deposit ratio. It may be commented that the liquidity position of HDFC bank is much more than SBI bank.

#### Hypothesis Testing at a Glance

Null Hypothesis - There is no significant difference in the financial position and performance of SBI and HDFC bank in India		
Sl. No.	T-Testing of null hypothesis on the basis of CAMEL ratios	Decision
1	Capital adequacy ratio	Reject
2	Debt equity ratio	Reject
3	Asset turnover ratio	Reject
4	Loan ratio	Reject
5	Net NPA to net advance ratio	Reject
6	Credit deposit ratio	Accepted
7	Net profit per employee	Rejected
8	Net profit ratio	Rejected
9	Dividend per share	Accepted
10	Earnings per share	Accepted
11	Return on net worth	Rejected
12	Return on asset	Rejected
13	Interest spread ratio	Rejected
14	Liquid ratio	Accepted
15	Liquid asset to total asset ratio	Accepted
16	Liquid asset to total deposit ratio	Accepted

In the present study, total 16 ratios have been measured under CAMEL model, the average result of HDFC bank is best in 14 cases. So, it is established that largest private sector bank HFDC bank has better financial performance and efficiency compared to largest public sector bank SBI.

#### References

- Sodhi,A.K. and Waraich, S. (2016). Fundamental Analysis of Selected Public and Private Sector Banks in India. *NMIMS Management Review*, XXVIII, 31-48.
- Karri, H.K. et al. (2015). A Comparative Study on Financial Performance of Public Sector banks in India: An Analysis on CAMEL Model. *Munich Personal RePEc Archive*, Paper no. 62844. Online Available at <https://mpra.ub.uni-muenchen.de/62844/>
- Goel, C. and Rekhi,C.B. (2013). A Comparative Study on the Performance of Selected Public Sector and Private Sector Banks in India. *Journal of Business Management & Social Sciences Research (JBM&SSR)*, 2(7), 46-56.
- Nagarkar,J.J. (2015). Analysis of Financial Performance of Banks in India. *Annual Research Journal of Symbiosis Centre for Management Studies, Pune*, 3, 26-37.
- Majumder, T.H. and Rahaman, M.M. (2016). A CAMEL Model Analysis of Selected Banks in Bangladesh. *International Journal of Business and Technopreneurship*, 6(2), 233-266.
- Mistry, D.S. and Savani,V. (2015). A Comparative Study of the Profitability Performance in the Banking Sector: Evidence from Indian Private Sector Bank. *XVI Annual Conference Proceedings*, 346-360. Online Available at [http://www.internationalconference.in/XVI\\_AIC/INDEX.HTM](http://www.internationalconference.in/XVI_AIC/INDEX.HTM)
- Taqi, M and Mustafa, M.S.M. (2018). Financial Analysis of Public and Private Sector Banks of India: A Comparative Study of Punjab National Bank and HDFC Bank. *International Academic Journal of Business Management*, 5(1), 26-47.
- Balaji, C. and Kumar, G.P. (2016). A Comparative Study on Financial Performance of Selected Public & Private Sector Banks in India. *Journal of Commerce and Trade*, XI (2), 89-96.
- Annual reports of SBI from 2013-14 to 2017-18.
- Annual Reports of HDFC from 2013-14 to 2017-18.
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