



Evaluating Performance of Private Sector Banks HDFC & ICICI: An Application of Camel Model with Capital & Earning Parameter

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Abstract: *Indian banking system has transformed in recent years due to globalization in the world market, which has resulted in fierce competition. In this article, an attempt has been made to find out the difference between the two private sector banks namely at HDFC & ICICI. Various commercial banks operating in India. The banks in India have been categorized into Public sector, Private sector and foreign banks. For the purpose of profitability analysis, for comparing capital adequacy we have selected samples of two private sector banks by applying CAMEL analysis technique. Only two parameter of CAMEL have been selected for research and i.e. capital adequacy and earnings from the Capital Adequacy, Asset Quality, Management Quality, Earning Quality and Liquidity. In the two private sector banks data we have applied t-test to measure its performance efficiency. As per the derived data, we can say that in net profit margin and return on asset we have acceptance of the null hypothesis, as it is saying that there is no significance level of difference between the two selected samples. On the other side for CAR, Return on Net Worth, Return on Long Term Fund, is having the rejection of null hypothesis as it is saying that there is significance of difference between two selected samples.*

Keywords: *Capital Adequacy Ratio (CAR), Return On Asset (ROA), Net Profit Margin (NP), Housing Development Finance Corporation Ltd(HDFC), Industrial Credit and Investment Corporation of India, (ICICI)*

I. AN INTRODUCTION TO PRIVATE SECTOR BANKS

The private-sector banks in India represent part of the Indian Banking Sector that is made up of both private and public sector banks. The "private sector banks" are banks where greater parts of stake or equity are held by the private shareholders and not by government.

Banking in India has been dominated by public sector banks since the 1969 when all major banks were nationalized by the Indian government. However since liberalization in government banking policy in 1990s, old and new private sector banks have re-emerged. They have grown faster and bigger over the two decades since liberalization using the latest technology, providing contemporary innovations and monetary tools and techniques.

The private sector banks are split into two groups by financial regulators in India, old and new. The old private sector banks existed prior to the nationalization in 1969 and kept their independence because they were either too small or specialist to be included in nationalization. The new private sector banks are those that have gained their banking license since the liberalization in the 1990s.

II. AN OVERVIEW TO SELECTED BANKS

A. Housing Development Finance Corporation Ltd (HDFC)

B. Industrial Credit and Investment Corporation of India, (ICICI)

HDFC BANK:

HDFC Bank Limited was incorporated in August 1994. It was promoted by Housing Development Finance Corporation Limited (HDFC), India's largest housing finance company. It was among the first companies to receive an 'in principle' approval from the Reserve Bank of India (RBI) to set up a bank in the private sector. The Bank started operations as a scheduled commercial bank in January 1995 under the RBI's liberalization policies.

On 23 May 2008, HDFC Bank acquired Centurion bank of Punjab taking its total branches to more than 1,000. The amalgamated bank emerged with a base of about Rs. 1, 22, 000 crore and net advances of about Rs. 89,000 crore. The balance sheet size of the combined entity is more than Rs. 1, 63,000 crore.

As of 31 March 2013, the bank had assets of INR 4.08 trillion. For the fiscal year 2012-13, the bank has reported net profit of INR 69 billion up 31% from the previous fiscal year. Its customer base stood at 28.7 million customers on 31 March 2013.

**ICICI BANK:**

ICICI Bank was established by the **Industrial Credit and Investment Corporation of India**, an Indian financial institution, as a wholly owned subsidiary in 1955. The parent company was formed in 1955 as a joint-venture of the World Bank, India's public-sector banks and public-sector insurance companies to provide project financing to Indian industry. The bank was initially known as the industrial credit and Investment Corporation of India, before it changed its name to the abbreviated ICICI Bank. The parent company was later merged with the bank. ICICI Bank launched internet banking operations in 1998.

ICICI Bank is an Indian multinational bank and financial services company headquartered in Mumbai. Based on 2014 information, it is the second largest bank in India by assets and by market capitalization. It offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels and through its specialized subsidiaries in the areas of investment banking, life and non-life insurance, venture capital and asset management. ICICI Bank is one of the big four banks of India, along with the state bank of India, Punjab national bank and bank of Baroda.

III. REVIEW OF LITERATURE

Studies by Saveeta and Verma Sateesh (2001), Shravan Singh (2001), Kantawala Amita S (2004), Ketkar W Kusum et al. (2004), analyze the performance of banks from a profitability point of view, using various parameters.

P Janaki Ramudu and S Durga Rao (2006) conducted a study on A Fundamental Analysis of Indian Banking Industry, by analyzing the performance of SBI, ICICI and HDFC.

Dilip Kumar Jha and Durga sankar Sarangi (2011) conducted a study on Performance of new generation banks using modern techniques to rate the banks.

K.V.N.Prasad and Dr.A.A.Chari (2011) conducted a study to evaluate financial performance of public and private sector banks in India. In this study they compared financial performance of top four banks in India viz., SBI, PNB, ICICI and HDFC and concluded that on overall basis HDFC rated top most position.

IV. AN OVERVIEW ON CAMEL MODEL

The CAMELS ratings or Camels rating is a supervisory rating system originally developed in the U.S. to classify a banks overall condition. It's applied to every bank and credit union in the U.S. (approximately 8,000 institutions) and is also implemented outside the U.S. by various banking supervisory regulators.

The ratings are assigned based on a ratio analysis of the financial statements, combined with on-site examinations made by a designated supervisory regulator. In the U.S. these supervisory regulators include the Federal Reserve, the national credit union administration and the Federal Deposit Insurance Corporation.

The components of a bank's condition that are assessed:

- C- Capital adequacy
- A- Assets
- M- Management Capability
- E- Earnings
- L- Liquidity (also called asset liability management)
- S- Sensitivity (sensitivity to market risk, especially interest rate risk)

As a part of our research study we have selected only two parameters from the CAMEL MODEL and they are Capital Adequacy and Earnings measurement.

V. RESEARCH METHODOLOGY

CAMEL is basically ratio based model for evaluating the performance of banks. It is a management tool that measures Capital Adequacy, Assets Quality, efficiency of Management, quality of Earnings and Liquidity of financial institutions. The present study adopts analytical and descriptive research design. The data of the sample banks for a period of 2007-2013 have been collected from the annual reports published by the banks.

A sample of two PVT Sector Banks Housing Development Finance Corporation Ltd(HDFC) , , Industrial Credit and Investment Corporation of India, (ICICI) for the purpose of the study. While analyzing and interpreting the results, the statistical tools used are arithmetic mean, t-test using SPSS 19.

SAMPLING:



As a part of our research study we have selected simple random sampling method for the selected of samples and it calls for Housing Development Finance Corporation Ltd (HDFC), Industrial Credit and Investment Corporation of India, (ICICI). Here we have designed for the sample size and i.e. 2 in numbers.

HYPOTHESIS:

Various ratios measuring under capital adequacy, asset quality, management efficiency, earnings quality and liquidity tested under the following hypothesis.

1. **Null Hypothesis (H₀):**

There is no significant difference between capital and earning parameter of Housing Development Finance Corporation Ltd (HDFC), Industrial Credit and Investment Corporation of India, (ICICI)

2. **Alternative Hypothesis (H₁):**

There is a significant difference between capital and earning parameter of Housing Development Finance Corporation Ltd (HDFC), Industrial Credit and Investment Corporation of India, (ICICI)

VI. DATA COLLECTION

CAPITAL ADEQUACY:

It is important for a bank to maintain depositors' confidence and preventing the bank from going bankrupt. It reflects the overall financial condition of banks and also the ability of management to meet the need of additional capital. The following ratios measure capital adequacy:

Capital Adequacy Ratio (CAR): The capital adequacy ratio is developed to ensure that banks can absorb a reasonable level of losses occurred due to operational losses and determine the capacity of the bank in meeting the losses. The higher the ratio, the more will be the protection of investors. The banks are required to maintain the capital adequacy ratio (CAR) as specified by RBI from time to time. As per the latest RBI norms, the banks should have a CAR of 9 per cent.

Debt-Equality Ratio (D/E): This ratio indicates the degree of leverage of a bank. It indicates how much of the bank business is financed through debt and how much through equity. It is the proportion of total outside liability to net worth. Higher ratio indicates less protection for the creditors and depositors in the banking system.

Table-1
CAR (Capital Adequacy Ratio) of HDFC BANK (2009-2013)

Balance Sheet Ratios	March – 2013	March -2012	March – 2011	March – 2010	March - 2009
Capital Adequacy Ratio	16.80	16.52	16.22	17.44	15.69
Debt/Equity Ratio	8.18	8.24	8.22	7.78	9.75

Table-2
CARS (Capital Adequacy Ratio) of ICICI BANK (2009-13)

Balance Sheet Ratios	March – 2013	March -2012	March – 2011	March – 2010	March - 2009
Capital Adequacy Ratio	18.74	18.52	19.54	19.41	15.53
Debt/Equity Ratio	4.39	4.23	4.10	3.91	4.42

EARNING QUALITY:

The quality of earnings is a very important criterion that determines the ability of a bank to earn consistently. It basically determines the profitability of bank and explains its sustainability and growth in earnings in future. The following ratios explain the quality of income generation.

1. **Net Profit Margin:**

It is calculated by finding the net profit as a percentage of the revenue.

$$\text{Net Profit Margin} = \frac{\text{Net Revenue}}{\text{Revenue}}$$

2. **Return on long term Fund:**

Long term fund = Total Asset – Current Liability of share holders fund + long term funds.

Return on Long Term Fund = Profit Earnings / Long term funds

3. **Return on Net Worth:**

The use of debt to buy back stock and thereby increase the return on equity can backfire. The new debt brings with it a new fixed expense in the form of interest payments. If sales decline, this added cost of debt could trigger a steep decline in profits that could end in bankruptcy. Thus, a business that relies too much on debt to enhance its shareholder returns may find itself in significant financial trouble.



Return on Net Worth = Return on Net worth * 100/Net worth

4. Return on Assets:

The return on assets (ROA) percentage shows how profitable companies' assets are in generating to revenue. ROA can be computed as:

$$ROA = \frac{\text{Net Income}}{\text{Average Total Assets}}$$

Table-3
Profitability Ratios of Hdfc Bank (2009-2013)

Profitability Ratios	March – 2013	March - 2012	March – 2011	March – 2010	March - 2009
Net Profit Margin	16.04	15.88	16.18	14.76	11.35
Return on Long Term Fund (%)	80.09	75.20	59.91	56.08	83.31
Return on Net Worth (%)	18.57	17.26	15.47	13.70	15.32
Return on Assets Including Revaluations	152.20	127.52	545.46	470.19	344.44

Table-4
Profitability Ratios of Icici Bank (2009-2013)

Profitability Ratios	March – 2013	March - 2012	March – 2011	March – 2010	March - 2009
Net Profit Margin	17.19	15.75	15.79	12.17	9.74
Return on Long Term Fund (%)	56.37	52.33	43.05	44.72	56.72
Return on Net Worth (%)	12.48	10.70	9.35	7.79	7.58
Return on Assets Including Revaluations	578.21	524.01	478.31	463.01	444.94

VII. APPLICABILITY OF T-TEST

We use this test for comparing the means of two samples. In simple terms, the t-test compares the actual difference between two means in relation to the variation in the data.

List the data for HDFC BANK

List the data for ICICI BANK)

$$t = \frac{\bar{X}_1 - \bar{X}_2}{s_{X_1X_2} \cdot \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \text{ Where,}$$

$$s_{X_1X_2} = \sqrt{\frac{(n_1 - 1)s_{X_1}^2 + (n_2 - 1)s_{X_2}^2}{n_1 + n_2 - 2}}$$

The critical values of t distribution are calculated according to the probabilities of two alpha values and the degrees of freedom. The Alpha (α) values 0.05 one tailed and 0.1 two tailed are the two columns to be compared with the degrees of freedom in the row of the table.

In this we have compared calculated value as per T – test with Tabular Value of T-test as one tailed test at 5% level of Significance.

VIII. FINDINGS

Ratio	Banks Name	Mean	S.D.	T- Test (Calculated Value)	Tab Value	Accept & Reject Criteria
CAR	ICICI	18.35	1.24	2.31	1.86	2.31>1.86 Rejected
	HDFC	16.53				
Debt/Equity Ratio	ICICI	4.21	0.55	12.13	1.86	12.13>1.86 Rejected
	HDFC	8.43				
Net Profit Margin	ICICI	14.12	1.90	0.59	1.86	0.59<1.86 Accepted
	HDFC	14.84				
Return On Long Term Fund	ICICI	50.63	9.76	16.41	1.86	16.41>1.86 Rejected
	HDFC	70.91				
Return on Net worth	ICICI	9.58	3.88	2.64	1.86	2.64>1.86 Rejected
	HDFC	16.06				
Return On Asset	ICICI	497.69	137.11	1.23	1.86	1.23<1.86 Accepted
	HDFC	327.96				



It can be interpreted from the above table that there is a significance difference between two samples i.e. HDFC & ICICI in the form of Capital Adequacy Ratio, Debt/Equity ratio, Return on Long term Fund and Return on net worth because here the calculated value for T is greater than the tabular value of T- test. So the hypothesis is been rejected.

On an opposite side in our research content two hypothesis been accepted because it is having calculated T- Value is less than tabular value for T- Test and that is for net profit margin and Return on asset.

Capital Adequacy Ratio	-	Hypothesis has been Rejected.
Debt/Equity Ratio	-	Hypothesis has been Rejected
Net Profit Margin	-	Hypothesis has been Accepted
Return On Long Term Fund	-	Hypothesis has been Rejected
Return On Net Worth	-	Hypothesis has been Rejected
Return On Asset	-	Hypothesis has been Accepted

IX. CONCLUSION

As in this research paper evaluation of two private sector banks calls for HDFC Bank & ICICI Bank has taken into consideration and as per the two parameters of camel model that is Capital adequacy and Earning capacity it has been evaluated.

T Test has been applied to test four hypothesis and findings have been statistically counted.

From the aforementioned, summarized findings, we can clearly note the following facts regarding HDFC Bank & ICICI Bank.

1. Capital Adequacy Ratio - There is a significance difference in capital adequacy ratio of both the banks.
2. Debt/Equity Ratio - There is a significance difference in capital adequacy ratio of both the banks
3. Net Profit Margin - There is no significance difference of Net Profit Margin for both the banks.
4. Return On Long Term Fund banks. - There is a significance difference of Return on Long Term Fund for both the banks.
5. Return On Net Worth - There is a Significance difference of Return on Net Worth for both the banks.
6. Return On Asset - There is no significance of difference of Return on Aset for both the banks.

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