PERFORMANCE ANALYSIS OF SELECT PRIVATE SECTOR BANKS IN INDIA

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Abstract
A study is made on performance analysis of select private sector banks by choosing seven banks on the basis of high deposit volume and total assets. The objective is to analyse the performance of these banks, selected by Judgement Sampling Technique, by using various ratios under CAMEL Model. Data analysis and interpretations were made with special reference to Capital Adequacy by analysing ten years profit and loss account and balance sheets of these banks from 2006 through 2015 under CAMEL Model. The statistical data of other ratios for Asset Quality, Management efficiency, Earning efficiency and Liquidity efficiency are alone considered for better understanding of composite ranking of these banks under all parameters. One-Sample Kolmogorov-Smirnov Test has been used as part of statistical analysis and to test the hypothesis that whether these ratios are normally distributed. The findings, suggestions, limitations of the study and conclusions have been given accordingly.

Keywords: Capital Adequacy Ratio, Net Advances to Total Assets Ratio, Debt Equity Ratio and Kolmogorov-Smirnov Test.

1.0 Introduction
Banking system plays a very significant role in the economy of a country. It is central to a nation's economy as it caters to the needs of credit for all the sections of the society. They have to act not only as purveyors of credit, but also as harbingers of social and economic development through a variety of enterprises, many of which may be tiny and yet capable of generating productive energies. The number of services offered has increased and banks have laid emphasis on meeting the customer expectations. Now, the existing situation has created various challenges and opportunity for Indian Commercial Banks. These challenges have been posed by the existing and new generation private sector banks. Hence, in order to study how good and healthy competitions these private sector banks are posing to Public Sector Banks, it is all the more essential to understand first how good these private sector banks among themselves are healthy and competitive.

2.0 Review of Literature
For the purpose of literature survey, information was gathered by those who had conducted study, the information was also searched in libraries in various reports, journals and internet sites were also scanned for the authenticities of the subject matter. For the purpose of understanding the existing research in the selected research topic, the previous research works have been collected through various sources. The collected works provide the basis for identifying the research gap and understanding the pattern of research. The research articles, past thesis works and analytical frameworks form the existing review and conceptual framework. Hence the researcher has attempted to present the relevant articles and past research works in this chapter. **Pradeep K Das (1997)** evaluates the competitive advantage of different bank groups using Matrix analysis based on eight twin parameters. Foreign banks, SBI and its Associates and Private Banks were found to have considerable advantage over the other groups. The research relates to the early post- reform phase. The nature of competition has changed drastically; since then banks have undergone vast restructuring exercises too. **Niranjan Chipalkatti and Meenakshi Rashi (2000)** investigated whether Indian banks under-provide for loan loss provisions and under-state their gross non-performing assets in order to boost earnings and capital adequacy ratios. The paper examined the behavior of Indian banks in the context of tighter regulatory standards that became effective after1999. This paper examined whether weaker Indian banks may have had an incentive to under provide for loan loss provisions (LLPs) and understate gross non-performing assets(NPAs) in order to boost their earnings and capital adequacy ratios (CARs) by examining bank behavior in India during the period 1996-2002. The paper concluded that the true nature of India's bad loan problem may be more serious than alluded to in recent studies.

3.0 Objectives of the Study
- To analyse the performance of Select Private Sector Banks using CAMEL model by calculating ratios exclusively on Capital Adequacy and statistical data of figures so calculated for Assets Quality, Management Efficiency, Earning Quality and Liquidity are also to be considered for composite ranking of these banks.
- To suggest measures, on the basis of the study results, to improve further the financial performance of the banks under study.

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4.0 Research Methodology

Select Seven Private Sector Banks(SSPRSBs) viz. Housing Development and Finance Corporation Bank Ltd (HDFC), Industrial Credit and Investment Corporation of India Bank Ltd (ICICI), Axis Bank Ltd (AB), Karur Vysya Bank Ltd (KVB), Lakshmi Vilas Bank (LVB), Indusind Bank Ltd (IIB) and Dhanalakshmi Bank Ltd (DB) are chosen on the basis of the Highest deposit volume and Total Assets. Judgment Sampling Technique has been used for selection of these banks. Secondary data collection is used for the analysis and Kolmogorov-Smirnov Test is considered to test the hypothesis that these variables are normally distributed.

5.0 Data Analysis and Interpretation

Data are collected through Reserve Bank of India monthly bulletins, annual reports and banks' websites. Banks Balance Sheets and Profit and Loss Accounts for the years 2006 -2015 (10 years) have been used to analyse the SSPRSBs. Under CAMEL Model, a specific analysis is made for SSPRSBs under Capital Adequacy on the basis of calculation of ratios viz. Capital Adequacy Ratio, Net Advances to Total Assets and Debt Equity Ratio. For other variables, calculated ratios are only taken for composite ranking of these banks.

5.1 Camel Ratings (2006 – 2015) - Capital Adequacy Ratio

Capital base of financial institutions facilitates depositors in forming their risk perception about the organization. Capital adequacy is very useful for a bank to conserve and protect stakeholders' confidence and prevent the bank from bankruptcy. The higher the CAR ratio, indicates stronger the bank and the more will be the protection to investors. It is calculated as
CAR = (Tier-I Capital + Tier-II Capital)/Risk Weighted Assets.

Tier 1 capital includes Permanent Shareholders' Equity; Perpetual Non-cumulative Preference Shares, Disclosed Reserves and Innovative Capital Instruments. Tier 2 capital include Undisclosed Reserves, Revaluation Reserves of fixed assets and long-term holdings of equity securities, General provisions/General loan-loss reserves; Hybrid debt capital instruments and Subordinated debt

Table No.1-Private Banks-Capital Adequacy Ratio

Year	HDFC	ICICI	AB	KVB	DBL	LVB	IIB
2015	16.80	12.78	12.07	14.63	9.71	11.00	12.10
2014	16.10	12.78	12.62	12.77	10.00	11.00	13.96
2013	16.80	18.74	17.00	14.41	11.06	12.00	15.36
2012	15.71	16.26	13.66	14.33	9.49	13.00	13.85
2011	15.32	17.63	12.65	14.41	11.80	13.00	14.39
2010	16.45	19.14	15.80	12.48	12.47	14.82	13.40
2009	15.09	15.92	13.69	13.08	14.44	10.09	12.33
2008	13.60	14.92	13.73	12.58	9.21	12.73	11.91
2007	13.08	11.69	11.57	14.51	9.77	12.43	12.54
2006	11.41	13.35	11.08	14.79	9.75	10.79	10.54
Avg.	**15.04**	**15.32**	**13.39**	**13.80**	**10.77**	**12.09**	**13.04**
S.dev	1.79	2.65	1.85	0.94	1.68	1.40	1.41
CV	12%	17%	14%	7%	16%	12%	11%
CAGR	4.4%	-0.5%	1.0%	-0.1%	0.0%	0.2%	1.5%

Source: Annual Reports; CV – Coefficient of Variation; CAGR – Compounded Annualised Growth Rate.

Interpretation: The capital adequacy ratio shows increasing trend for all the banks. HDFC bank has highest ratio of 16.80% in 2015. The CAGR of HDFC is greater indicating comparatively higher growth of capital adequacy ratio.

5.2 Net Advances to Total Assets:

This ratio indicates the relationship between the total advances and total assets. It indicates a bank's aggressiveness in lending which ultimately produces better Profitability. Higher ratio is preferred to a lower one.

Table No.2- Private Banks-Net Advances to Total Assets

Year	HDFC	ICICI	AB	KVB	DBL	LVB	IIB
2015	0.62	0.60	0.61	0.68	0.53	0.66	0.63
2014	0.62	0.57	0.60	0.66	0.54	0.62	0.64
2013	0.60	0.54	0.58	0.63	0.56	0.66	0.61
2012	0.58	0.54	0.59	0.64	0.60	0.63	0.61
2011	0.58	0.53	0.59	0.63	0.64	0.61	0.58
2010	0.57	0.50	0.58	0.61	0.62	0.60	0.58
2009	0.54	0.58	0.55	0.61	0.57	0.63	0.58
2008	0.48	0.56	0.54	0.65	0.52	0.59	0.56
2007	0.51	0.57	0.50	0.64	0.53	0.62	0.53
2006	0.48	0.58	0.45	0.62	0.56	0.60	0.53
Avg.	**0.56**	**0.56**	**0.56**	**0.64**	**0.57**	**0.62**	**0.58**
Sd.dev	0.05	0.03	0.05	0.02	0.04	0.02	0.04
CV	9%	5%	9%	3%	7%	4%	7%
CAGR	2.9%	0.3%	3.4%	1.1%	-0.5%	1.1%	2.0%

Source: Annual Reports; CV – Coefficient of Variation; CAGR – Compounded Annualised Growth Rate

Interpretation:
The ratio of Net Advances to Total Assets shows increasing trend for most of the banks. CV is more stable for LVB. The CAGR of DBL is least and negative. The CAGRs of other banks are reasonably good except ICICI.

5.3 Debt-Equity Ratio:

This ratio represents the degree of leverage of a bank. It shows how much proportion of the bank business is financed through equity and how much through debt. Higher ratio is an indication of less protection for the depositors and creditors and vice-versa.

Table No.3- Private Banks-Debt-Equity Ratio

Year	HDFC	ICICI	AB	KVB	DBL	LVB	IIB
2015	8.00	6.64	9.00	11.21	18.41	14.41	9.24
2014	9.36	6.65	8.67	14.14	18.29	18.06	8.71
2013	9.09	6.57	8.96	13.82	17.51	15.87	8.57
2012	9.04	6.55	11.14	12.59	18.57	15.33	11.29
2011	8.79	6.08	11.34	11.94	15.58	13.31	10.43
2010	8.38	5.74	9.88	12.19	16.40	12.73	14.61
2009	9.67	5.73	12.49	11.20	11.71	16.30	16.77
2008	9.15	6.62	10.63	10.82	20.97	13.58	18.14
2007	11.05	11.42	18.81	9.00	20.99	12.87	17.26
2006	**11.39**	**9.03**	**14.83**	**8.92**	**18.85**	**14.92**	**17.94**
Avg.	**9.39**	**7.10**	**11.57**	**11.58**	**17.73**	**14.74**	**13.30**
S.dev	1.08	1.78	3.16	1.76	2.72	1.70	4.04
CV	11%	25%	27%	15%	15%	12%	30%
CAGR	-3.8%	-3.4%	- 5.4%	2.6%	-0.3%	-0.4%	- 7.1%

Source: Annual Reports; CV – Coefficient of Variation; CAGR – Compounded Annualised Growth Rate

Interpretation

The Debt-Equity ratio shows fluctuations in respect of all the banks. The average Debt-Equity is the highest for DBL and lowest for HDFC. Debt-Equity of HDFC is reasonably good when compared with other banks as evidenced by CV. Further, Reserve Bank of India prescribes banks to maintain a minimum Capital to Risk-Weighted Assets Ratio (CRAR).The requirement for additional capital is indicated by capital adequacy. It also reflects whether the bank has enough capital to bear unexpected losses arising in the future. The higher the CRAR ratio indicates stronger the bank and the more will be the protection to investors. The following table shows the group average and group rank of capital adequacy ratio.

Table No.4-Camel Ratings (2006-2015): Capital Adequacy Ratio

No	Banks	CAR	Rank1	Net Adv/ Assets	Rank2	DER	Rank3	Group Average	Group Rank
1	HDFC	15.04	2	0.56	5	9.39	2	6.00	3
2	ICICI	15.32	1	0.56	5	7.10	1	5.00	2
3	AB	13.39	4	0.56	5	11.57	4	6.67	5
4	KVB	13.80	3	0.64	1	11.58	5	3.33	1
5	DBL	10.77	7	0.57	4	17.73	7	12.00	7
6	LVB	12.09	6	0.62	2	14.74	6	8.00	6
7	IIB	13.04	5	0.58	3	9.76	3	6.33	4

Interpretation

1. Higher the CAR better for the bank and ranking of bank is done accordingly. The capital adequacy ratio is the highest for ICICI and lowest for DBL.
2. Similarly, ranking of banks for Net Advances to Assets is done based on the higher ratio. This ratio is the highest for KVB and lowest for HDFC, ICICI and AB.
3. Lower Debt-Equity ratio is better for the bank and ranking is done accordingly. DER is the lowest for ICICI and highest for DBL.
4. The overall group rank is made taking all the three ratios together. Lower the average higher the ranking for the bank. Hence, KVB is ranked top and at bottom is DBL.

The composite ranking is given in the following table based on all the parameters.

Table No. 5-COMPOSITE RANKING (OVERALL PERFORMANCE) OF SELECT PRIVATE SECTOR BANKS

No	Banks	CAR	Asset Quality	Mgmnt Efficiency	Earning Efficiency	Liquidity Efficiency	Average	Rank
1	HDFC	6.00	4.67	5.25	5.33	4.50	5.15	1
2	ICICI	5.00	7.67	3.25	10.00	5.00	6.18	3
3	AB	6.67	6.33	3.50	7.00	9.00	6.43	4
4	KVB	3.33	3.00	5.25	6.67	11.00	5.78	2
5	DBL	12.00	11.00	13.75	11.00	12.00	11.95	7
6	LVB	8.00	10.00	11.75	10.67	14.00	10.88	6
7	IIB	6.33	5.67	6.00	9.00	6.00	6.80	5

Interpretation

On an overall composite rating basis, among the private sector banks HDFC occupies the top position and the bottom slot is taken by DBL. Among the SSPRSBs, DBL has to improve its Capital Adequacy, Asset Quality and Management Efficiency. LVB has to improve its Liquidity Efficiency and Management Efficiency.

5.4 Statistical Analysis

Kolmogorov-Smirnov Test For Testing Normality

It is necessary to check the normality of variables used for arriving overall performance ratio under CAMEL Model for which Kolmogorov-Simirnov test is used for checking the normality of data.

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Hypothesis

The variables used for CAMEL Model – Capital Adequacy, Asset Quality, Management efficiency, Earning efficiency and Liquidity efficiency are normally distributed.

The check distribution of such variables Kolmogorov-Smirnov test is applied. The result of the test is given below:

Table No.6-One-Sample Kolmogorov-Smirnov Test

Parameters		Capital Adequacy	Asset Quality	Mgmnt Efficiency	Earning Efficiency	Liquidity Efficiency
N		14	14	14	14	14
Normal Parameters[a,b]	Mean	7.4764	7.5007	7.5000	7.5000	7.50000
	Std. Deviation	2.22161	2.77558	3.22252	2.48675	4.052540
Most Extreme Differences	Absolute	.117	.174	.115	.155	.160
	Positive	.090	.104	.115	.080	.160
	Negative	-.117	-.174	-.110	-.155	-.092
Test Statistic		.117	.174	.115	.155	.160
Asymp. Sig. (2-tailed)		.200[c,d]	.200[c,d]	.200[c,d]	.200[c,d]	.200[c,d]

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Inference

The results highlighted that calculated P- values are greater than the chosen alpha level of 0.05 for SSPRSBs; hence the hypothesis is accepted. That is the data are normally distributed.

6.0 Findings and Suggestions

There is significant difference in performance of SSPRSBs based on the variables. Among these seven banks and according to our analysis, the best performing bank is HDFC and the least performing bank is DBL. Costing of the product and more number of products offered augurs well for HDFC when compared with DBI. Though SSPRSBs are better technology driven when compared to their counterparts in Public Sector, they need to penetrate to rural and semi-urban areas to facilitate the people of this area are also benefitted out of their technological advancement.

This is one reason why the performance of Public Sector Banks are slightly undermined as they have more branches in rural and semi-urban areas as per the Government guidelines when compared to Private Sector Banks with a comparatively lesser technological advancement. Mergers and Acquisitions can be explored by strong private banks by acquiring the weak private banks that would avoid unhealthy competitions among these banks and improve their performances and efficiencies. The performance of banks can be further improved by reducing the NPA through effective recovery mechanisms and pursuing good Integrated Risk Management Policies. More number of e-banking products like mobile and internet banking facilities and plastic money like debit and credit cards and e-wallets can be made available to rural masses.

7.0 Limitations

The study is restricted to only SSPRSBs and their profit and loss accounts and balance sheets which could have undergone window dressing. The reliability of Gross NPA and Net NPA, Net Profit and other financial figures is limited as the researcher could not have access to real figures of these banks. Unlike Public Sector Banks, these banks cater to the need of elite customers and hence their performance, efficiency level etc appear to be better.

8.0 conclusions

From the study, it is concluded that performance of Seven Select Private Sector Banks differs on the basis of variables in CAMEL model. The variables used under CAMEL Model follow normal distribution. Suggestions are given for further improvement of their performances. To face the global challenges and to maintain the liquidity and profitability, it is essential to maintain the non-performing assets at low level through efficient recovery of loans. Banks in India are also moving from the individual silo system to an enterprise wide Integrated Risk Management System. To improve the performance of the banks, effective corporate governance system be followed by banks to avoid the high-profile breakdowns. The corporate borrowers even after defaulting continuously never had any real fear of bank taking any action to recover their dues despite

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the fact that their entire assets were mortgaged to the banks. The introduction of Securitization Act, 2002 is now safeguarding the real interest of banks. The performance of a bank can be improved by reducing the NPA, by using effective advanced information technologies, complying with international accounting standards and by following effective Integrated Risk Management.

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Statement of Fact

It is a statement of fact which I confirm that this article has been neither published nor submitted for publication, in whole or in part, either in a serial, professional journal or as a part in a book which is formally published and made available to the public.

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