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# Performance Evaluation of Public and Private Sector Banks in India: A Comparative Study

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### Abstract

This research paper examines the financial performance evaluation of banking companies in India to examine and to understand how capital adequacy, assets quality, management efficiency, earning quality and liquidity position of banks plays a crucial role in the growth. The present study is mainly based on secondary data. The study concentrates on Indian Banking Industry. Thus the five public sector banks and five private sector banks are selected. The period of the study was ten years from 1999-2000 to 2008-09. Descriptive analysis of average score analysis and the measures of dispersion of Standard deviation and its coefficient of variation is used to evaluate the performance of select banks. Discriminant Function Analysis is used to find out how do Public sector bank differ from Private sector bank in the factors on influencing the profitability. This study which is principally aimed at the financial performance of select public sector and private sector banks in India has examined thoroughly with all the objectives formulated. The entire hypotheses proposed in this study have been examined with appropriate tools also. Based on the studies done in the sample public sector banks and private sector banks, they have to take all the efforts needed to stabilize their financial performances. The study shows, the top ranked bank among the Public sector banks is Bank of Baroda, which has undergone a significant facelift in recent years. Among the select private sector banks, the top ranked banks are KMB and HDFC.

**Key words:** Performance evaluation, public sector, banking industry, capital adequacy.

### 1. INTRODUCTION

India's financial service industry is dominated by the banking sector that contributes significantly to the revenues of this Industry. To be sure, the industry has generated tremendous employment opportunities for a large section of the populace in India. The back bone of any economy can be best evaluated by the strength and flexibility of its banking structure. In the Indian context, banking is verily the proxy and indeed the cornerstone of the overall economic growth of the country. Before liberalization, the Indian Banking structure was largely controlled and parameters like branch size and location were given paramount importance.

Financial intermedian by way of mobilizing savings and lending to enterprise for the growth and development of an economy is present in some form in every economy. With rise in economic activities, they began to occupy a bigger space in financing trade and commerce, thus playing a critical role in the development of the economy. The Indian Banking Industry has come a long way from being a sleepy business institution to a highly practice and dynamic entity.

This transformation has been largely brought about by the large dose of liberalization and economic reforms that allowed banks to explore new business opportunities rather than generating revenues from conventional streams (i.e. borrowing and lending).

Banking sector in India changed drastically over the past decade due to technological innovation, deregulation of financial services, external financial liberalization and organizational changes in the corporate sector.

Our regulatory structure and self regulatory mechanisms have ensured that the Indian financial system continuously improves; it has also helped to build an environment that can withstand shocks. Corporate governance is already on the top of CEO's agenda and will be watched keenly if it is making banking institutions safer, sounder and more capital efficient.

### 2. FINANCIAL PERFORMANCE

The banking sector constitutes a major part of the financial services industry. The Performance of any economy to a large extent is dependent on the performance of the banks. To survive, compete and grow in the world of cut throat competition in the 21st century, financial performance has emerged as the most critical competence for any business. A review of literature reveals the wide gap in management research studies in the area of evaluating the performance of .banks.

Keeping importance of the subject and research gaps therein, the present study is an attempt to conduct a comparative analysis of public sector banks and private sector banks with a view to find out the gaps and to improve upon the overall working of the banking operation in India, 10 banks were selected for the study based on the market capitalization.

# 3. REVIEW OF THE LITERATURE

Sloan Swindle C (2005) found that the capital adequacy component of the CAMEL rating system to assess whether regulators in the 1980s influenced inadequately capitalized banks to improve their capital. Using a measure of regulatory pressure

that is based on publicly available information, they found that inadequately capitalized banks responded to regulators demands for greater capital.

Prasuna (2004) examined the performance of Indian Banks. The performance of 65 banks was studied for the period 2003-04. They found that the competition was tough and consumers benefited from it. Better services quality, innovative products, better bargains are all greeting the Indian customers. The coming fiscal will prove to be a transition phase for Indian banks, as they will have to align their strategic focus to increasing interest rates.

**Josefsson** (2002) examined that a sound banking system is a system in which individual banks, accounting for most of the systems transactions, are solvent and meet capital adequacy requirement. Solvency is reflected in the positive net worth of banks, as measured by the difference between assets and liabilities, excluding capital and reserves.

Veni (2004) examined the capital adequacy requirement of banks and the measures adopted by them to strengthen their capital ratios. The author highlighted that the rating agencies give prominence to Capital Adequacy Ratios of banks while rating the banks certified of deposits, fixed deposits and bonds. Thus, Capital Adequacy is considered as the key

# 4. OBJECTIVES OF THE STUDY

The main objectives of the study are:

- To review the origin, growth and role of commercial banks in India
- To study an overview of select commercial banks
- To study the capital adequacy and asset quality of select banks
- To analyze the management efficiency and earnings quality of select banks
- To analyze the liquidity position of select banks
- To summarize the findings and offer suggestions to improve the overall performance of the select commercial banks in India.

### 5. HYPOTHESIS

a. There is no significant difference between the

- mean Capital Adequacy Ratio among public sector banks.
- There is no significant difference between the mean Capital Adequacy Ratio among private sector banks.
- c. There is no significant difference between the mean Debt equity Ratio among public sector banks.
- d. There is no significant difference between the mean Debt equity Ratio among private sector banks.

### 6. METHODOLOGY

The present study is mainly based on secondary data. The study concentrates on Indian Banking Industry. Thus the five public sector banks and five private sector banks are selected. State bank of India, Bank of India, Bank of Baroda, Punjab National Bank and Union Bank of India are public sector banks. ICICI Bank, HDFC Bank, Axis Bank, IndusInd Bank and Kotak Mahindra bank are private sector banks.

The data required for the study were collected from annual reports of the Banks. The annual reports of the sample Banks have been downloaded from the database called Prowess. The data were also collected through journals and databases like prowess, ebsco business premier, black synergy, emerald etc.

# 7. RESULT AND DISCUSSION

a) Capital Adequacy: From the analysis it is found that the mean value of capital adequacy ratio of Bank of Baroda is 11.73% which is lower followed by Union Bank of India and Punjab National Bank. In private sector banks the mean value of AXIS bank is 11.59 percent followed by IndusInd Bank and HDFC Bank. Capital adequacy ratio is greater in private sector banks than public sector banks.

In public sector banks the mean value of debt equity ratio of Bank of Baroda is 14,42% followed by State Bank of India and Punjab National Bank. The mean value is highest in Bank of India. In private sector banks the AXIS Bank and

IndusInd Banks had more debt equity than the yearly industry averages every year. KotakMahindra Bank had the highest 73.46 percent of co-efficient of variation. The mean debt equity ratio is greater in public sector banks than private sector banks.

In public sector banks the ratio of total advances to total assets varied between the highest of 61.05 percent in 2009 and lowest of 41.52 percent in 2000. In private sector banks the mean value of HDFC is 41.82 percent followed by AXIS Bank which is below the average level of 48.20 percent. The mean total advances to total assets ratio is greater in public sector banks than private sector banks.

In Public sector banks the ratio of Government securities to total investments varied between the highest of 82.21 percent in 2009 and lowest of 69.98 percent in 2000. In private sector banks the mean value of Kotak Mahindra Bank is 20.16 percent which is very low followed by AXIS Bank and HDFC Bank The mean value of Government securities to total investment ratios is greater in public sector banks than private sector banks.

In all the companies the Punjab National Bank had the highest 89.05 percent of co-efficient of variation where as Union Bank of India shows consistency in Gross NPAs to Net advances. The mean gross NPAs to net advances ratio is greater in public sector banks than private sector banks. The net NPAs to net advances ratio is greater in public sector banks than private sector banks. The mean value of total investments to total assets ratio is greater in private sector banks than public sector banks.

b) Asset Quality: In Public sector banks gross NPA to Net advances is more in SBI and Bank of Baroda than the yearly industry average every year. The ratio of Gross NPAs to Net advances varied between the highest of 12.72% in 2000 and the lowest of 1.46 percent in 2009. In all the companies the Punjab National Bank had the highest 89.05 percent of co-efficient of variation. In private sector banks Gross NPAs to Net advances varied between

the highest of 10.09 percent in 2009 and the lowest of 4.58 percent in 2007. The ICICI Bank had the highest 81.38 percent of co-efficient of variation. The mean gross NPAs to net advances ratio is greater in public sector banks than private sector banks.

In public sector banks Bank of India, State Bank of India and Union Bank of India had much of net NPAs to net advances of 3.74 percent 3.57 percent and 3.48 percent respectively. In all the banking companies the Punjab National Bank had the highest 113.66 percent of co-efficient of variation. In private sector banks the ratio of Net NPA to net advances varied between the highest of 3.06% in 2002 and the lowest of 1.05 percent in 2006. The Kotak Mahindra Bank had the highest 127.18 percent of co-efficient of variation. The net NPAs to net advances ratio is greater in public sector banks than private sector banks.

In public sector banks the ratio of total investments to total assets varied between the highest of 35.57 percent in 2004 and the lowest of 25.45 percent in 2009. In private sector banks the ratio of total investment to total assets varied between the highest of 37.83 percent in 2001 and the lowest of 30.13 percent. The mean value of total investments to total assets ratio is greater in private sector banks than public sector banks.

Among the sample public sector banks the ratio of Net NPAs to total assets varied between the higher of 2.02 percent in 2000 and the lowest of 0.36 percent in 2009. Among the sample private sector banks the Net NPAs to total assets varied between the higher of 1.57 percent in 2002 and the lowest of 0.76 percent in 2006 of all the banks. Net NPAs to total assets ratio is greater in public sector banks than private sector banks.

c) Management Efficiency: Among the sample public sector banks the ratio of total advances to total deposits varied between the highest of 73.33 percent in 2009 and the lowest of 51.81 percent in 2000. In private sector banks the ratio of total advances to total deposits varied between the highest of 83.26 percent in 2009 and the lowest of

49.38 percent in 2000. The mean total advances to total deposits ratio is greater in private sector banks than public sector banks.

In public sector banks the ratio of business per employee varied between the highest of 730.40 percent in 2009 and the lowest of 126.32 percent in 2000. Among private sector banks the ratio of business per employee varied between the highest of 992.74 percent in 2000 and the lowest of 560.80 percent in 2009. The mean business per employee ratio is greater in private sector banks than public sector banks.

In the sample public sector banks the ratio of profit per employee varied between the highest of 6 percent in 2009 and the lowest of 0.64 percent in 2001. In private sector banks the ratio of profit per employee varied between the highest of 10.80 percent in 2000 and the lowest of 5.69 percent in 2007. The mean profit per employee ratio is greater in private sector banks than public sector banks.

d) Earning Quality: Among the public sector banks the ratio of operating profit to average working fund varied between the highest of 2.86 percent in 2004, and the lowest of 1.47 percent in 2001. Among the private sector banks the ratio of operating profit to average working fund varied between the highest of 3.69 percent in 2002 and the lowest of 2.07 percent in 2007. The mean value of operating profit to average working fund ratio is greater in private sector banks than public sector banks.

Among the sample public sector banks the ratio of spread to total assets varied between the highest of 3.14 percent in 2009 and the lowest of 2.40 percent in 2008. In the private sector banks the ratio of spread to total assets varied between the highest of 3.90 percent in 2009 and the lowest of 1.94 percent in 2000. The mean value of spread to total assets ratio is greater in public sector banks than private sector banks.

Among the public sector banks the ratio of net profit to average assets varied between the highest of 1.56 percent in 2004 and the lowest of 0.80 percent in 2001. In the private sector banks the

ratio of net profit to average assets varied between the highest of 1.63 percent in 2004 and the lowest of 0.89 percent in 2002. The mean value of net profit to average assets ratio is greater in private sector banks than the public sector banks.

In the public sector banks the ratio of interest income to total income varied between the highest of 88.46 percent in 2001 and the lowest of 79.93 percent in 2004. Among the private sector banks the ratio of interest income to total income varied between the highest of 93.02 percent in 2009 and the lowest of 75.04 percent in 2009. The mean value of interest income to total income ratio is greater in public sector banks than private sector banks.

Among the public sector banks the ratio of non interest income to total income varied between the highest of 20.07 percent in 2004 and the lowest of 11.21 percent in 2007. In the private sector banks the ratio of non interest income to total income varied between the highest of 24.06 percent in 2003 and the lowest of 15.35 percent in 2001. The mean value of non interest income to total income ratio is greater in private sector banks than public sector banks.

e) Liquidity: Among the public sector banks the ratio of liquid assets to total assets varied between the highest of 17.08 percent in 2000 and the lowest of 8.29 percent in 2004. In the private sector banks the ratio of liquid assets to total assets v The mean liquid assets to total assets ratio is greater in public sector banks than aried between the highest of 14.23 percent in 2000 and the lowest of 7.55 percent in 2006.

Among the public sector banks the ratio of government securities to total assets varied between the highest of 30.88 percent in 2003 and the lowest of 20.44 percent in 2007. In the private sector banks the ratio of government securities to total assets varied between the highest of 24.02 percent in 2006 and the lowest of 17.81 percent in 2001. The mean government securities to total assets ratio is greater in public sector banks than private sector banks.

Among the public sector banks the ratio of liquid assets to demand deposit varied between the highest of 165.40 percent in 2009 and the lowest of 90.41 percent in 2003. In the private sector banks the ratio of liquid assets to demand deposits varied between the highest of 176.51 percent in 2002 and the lowest of 71.32 percent in 2005. The mean liquid asset to demand deposits ratio is greater in public sector banks than private sector banks.

In the public sector banks the ratio of liquid assets to total deposits varied between the highest of 25.95 percent in 2001 and the lowest of 12.60 percent in 2004. Among the private sector banks the ratio of liquid assets to total deposits varied between the highest of 19.08 percent in 2000 and the lowest of 10.56 percent in 2006. The mean liquid assets to total deposits ratio is greater in public sector banks than private sector banks.

### 8. HYPOTHESIS TESTING

a) Test for mean Capital Adequacy Ratio among public sector banks: Test for mean Capital Adequacy Ratio among public sector banks was tested with ANOVA test procedure and the results of the analysis are given in Table.

Table 1

ANOVA for mean Capital Adequacy Ratio among public sector banks

Banks	Mean	Std.	Std.	F	P
		Deviation	Error		
SBI	12.74	0.69	0.22	1.621	0.186
PNB	12.27	1.48	0.47		
BOI	11.88	1.04	0.33		
BOB	12.78	0.90	0.28		
UBOI	12.02	0.79	0.25		
Total	12.34	1.05	0.15		

Source: Computed

**Null Hypothesis** ( $\mathbf{H}_0$ ): There is no significant difference between the mean Capital Adequacy Ratio among public sector banks

The table displays the descriptive statistics of the sample size, mean, standard deviation and standard error. The table also shows that the F statistics, calculated as the ratio of the variances. The column P value shows the probability value from the

F distribution. Since the P value is greater than 0.05 we accept the hypothesis. Hence there is no significant difference in the mean Capital Adequacy Ratio among public sector banks.

b) Test for mean Capital Adequacy Ratio among private sector banks: Test for mean Capital Adequacy Ratio among private sector banks was tested with ANOVA test procedure and the results of the analysis are given in Table 2.

Table 2
ANOVA for mean Capital Adequacy Ratio among private sector banks

Banks	Mean	Std. Deviation	Std. Error	F	P
ICICI	13.18	2.87	0.91	8.272	0.00**
HDFC	12.53	1.35	0.43		
AXIS	11.59	1.44	0.46		
KMB	19.96	7.53	2.38		
IIB	12.46	1.15	0.36		
Total	13.94	4.73	0.67		

Source: Computed

\*\* Highly Significant

**Null Hypothesis (H<sub>0</sub>):** There is no significant difference between the mean Capital Adequacy Ratio among private sector banks.

Since the P value is less than 0.05 we reject the hypothesis. Hence there is a significant difference in the mean Capital Adequacy Ratio among private sector banks.

### 9. SUGGESTIONS

On the basis of the study, the following suggestions can be put forth:

- Banks need to diversify their credit portfolio so as to avoid getting exposed to the vagaries of cyclicality of a few businesses.
- The banks may be required to adopt flatter organizational structure and customer centric business model to enable them to understand and anticipate proactively.
- The banks must focus on customization of products and services for catering to IT savvy population.
- To do business in a competitive environment the PSBs need to further reorient themselves to be

- more responsive to market dynamics.
- When compared to private sector banks, the PSBs are lagging in their transaction technology.
   Business models would need to be recast, processes, reengineered, redundancies removed, efficiency and productivity improved.
- Changing demographic life styles and affluence levels led to retail revolution in the recent past banks are expected to come out with innovative and attractive offerings to capture this potential.
- The banks should create new opportunities for mobilization of savings and in extending the geographical and functional coverage of banks.
- The banks should bring about reduction in costs both capital as well as operational cost to improve operation efficiency through intelligent adoption and use of technology.
- They should study the impact of loan policies of banks on their environment.
- The cost studies should be undertaken by the banks for evolving standards for cost control, rationalization of service charges and evolving suitable methods for profitability analysis.

### 10. CONCLUSION

An attempt has been made in the present study to have an insight into the examination of performance evaluation of the banking industry in India. Present study has highlighted, when it comes to fighting in the liberalized and globalized environment of today, SCBs are more geared now to survive in a fiercely competitive and highly complex global banking landscape. Banks have proven that when it comes to embrace global the best practice, they are not behind even the best of the breed. Their successful migration to Basel II norms vouch for that. However, it does not mean that the road ahead is without obstacles.

The domestic banking sector gets more and more integrated with the global banking sector, it faces the risk of getting exposed to the volatility and complexity of the global banking sector. Banks need to strengthen their capital adequacy, even the global liquidity situation remains tight. In such a context, both the regulators and policy makers need to revise

strategies on how to proactively deal with such threats.

Based on the studies done in the sample public sector banks and private sector banks, they have to take all the efforts needed to stabilize their financial performances. The study shows, the top ranked bank among the Public sector banks is Bank of Baroda, which has undergone a significant facelift in recent years, though it has been keeping a low-profile all along. It is followed by Punjab National Bank and Bank of India respectively, which have been showing lot of aggression in recent times, while the PNB has been working hard to spruce up its

image as a tech-savvy bank, have been successfully implemented core banking solutions across all its branches, the first state-owned bank to achieve this milestone.

Among the select private sector banks, the top ranked banks are KMB and HDFC. It is followed by ICICI and AXIS banks. The ICICI gives more concentration in retail banking. These innovative banking are no longer confined in the branches as customers are being provided with additional delivery channels viz., ATMs, Internet banking, mobile banking, phone banking etc. with improved customer service and transaction cost.

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