

Consistent Growth For Perpetual Sustenance: A Study Of Select Banks

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INTRODUCTION

The Indian banking sector has witnessed a major transformation during the last two decades and has passed through various phases. It has embraced superior technology, new products and services that are customer centric and have proven to be resilient during the recent global meltdown, which impacted the same sector in other countries. Trust of the depositors on a bank and trust of the bank on its borrowers form the bedrock of the banking business. Tough actions that were taken on time and prudential norms that had been initiated in the past have helped the sector to function efficiently and properly. 28 Public Sector Banks (PSBs), 19 Private Sector Banks (PvSBs) and 8 Foreign Banks, in terms of money circulation in the economy and the financial assistance extended to other sectors, play a big-boss role by meeting the financial needs of common men to business maharajas. The financial reforms, the recommendations of Narasimham committee, Basel-II norms, etc. have further strengthened the banks to ensure the transparent financial reporting in their annual reports. In this context, the Reserve Bank of India is one-step ahead in initiating strict measures, prudential norms and strategic policies to regulate the sector and to protect the interest of depositors, customers and investors in particular and the economy in general against the unscrupulous practices in the banking business. Banks differ from one another in many respects- namely the sources of funds such as equity size, reserves, deposits, borrowings, etc. and the applications of funds viz. cash and balances, advances, investments, etc. The sudden growth in the sources and applications of funds may be considered to be the indicators of overwhelming performance of banks, but at the same time, for the investors, it means paying a high rate of interest on deposits and dividends; making provisions for taxation and contingent liabilities, etc.; and making a proper provision for skyrocketing non-performing assets (NPAs). It may not be ruled out that a bank may seemingly hide some crucial information that should have been made public. Hence, it needs to be remembered that all that glitters is not gold (Satyam Scam) and slow and steady wins the race. The sudden rise in both the funds of a bank may adversely affect its business activities, if the events, e.g. the recent financial meltdown, recession, sluggishness, etc. reoccur as a bank has its own life cycle.

REVIEW OF LITERATURE

A number of studies have been referred to by the researcher to assess the banks' performance over a period of time, based on the different variables such as interest income and expenditure, non-interest income and expenditure, operating expenditure, gross yield on total assets, deposits and advances, growth, efficiency and profitability. In this context, a few studies are reviewed for the purpose the present study.

Vashisht A. K. (1987) evaluated the performance of public sector banks based on branch expansion, deposits, credit, priority sector advances, DRI advances and net profit and ranked the banks as excellent, good, fair and poor using composite weighted growth index. **Chidanbaram R. M. and Alamelu (1994)** observed that the private sector banks have been registering both-high profits and high rate of growth with respect to deposits, advances and reserves as compared to the public sector banks. **Deb and Kalpada (1998)** found that the quantitative growth of the public sector banks was no doubt significant in some areas, but qualitative improvement, by and large, lacked in desired standards. In spite of a substantial increase in deposit mobilization, their share in national income continued to be low. **Parasuraman (2000)** found that in India, 18 out of the 28 banks considered for the study were not creating any economic value for the shareholders. **D' Souza (2002)** was skeptical about the performance of public sector banks vis-à-vis private sector banks and foreign banks. **Mathur (2002)** concluded that the performance of the public sector banks was not statistically different from the private sector banks. **Luo (2003)** suggested that the overall technical efficiency of the profitability performance could predict the likelihood of bank failure. Banks that are not found effective, as per

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the acceptable levels, may be closed or merged with more efficient ones. Customers also benefit if they know which banks are efficient, as efficient banks generally have lower service charges, better loan and deposit rates and offer quality services. **Sanjay J. B. (2006)** analyzed the performance of new private sector banks with the help of the CAMEL model. The study covered four leading private sector banks-ICICI, HDFC, UTI and IDBI for a period of five years from 2000-01 to 2004-05. The study revealed that the average performance of IDBI bank was the best among all the banks followed by UTI. **Gunjan (2009)** observed that there is no clear-cut evidence of improvement in the efficiency levels of the public sector banks over the years. **Soral G. and Shurveer (2009)** found that performance of the Indian banking industry might be termed as satisfactory regarding shareholder value creation over the years during the post-liberalization period. A study conducted by **The Financial Express (2010)** considering five variables namely strength and soundness, growth, profitability, efficiency and credit quality ranked the public sector banks, private sector banks and foreign banks as well.

SCOPE OF THE STUDY

In India, the banking sector plays a candid and heroic role by lending its huge funds to the other sectors of the economy for their overall development. The banks mobilize/pool the funds from the small and scattered depositors, customers and investors, whose interest must be protected, and many of them do not know how consistently a bank performs year after year. Hence, the present study is an effort to analyze 4 each out of the 28 Public Sector Banks and 19 Private Sector Banks and to trace the consistent growth in their sources and applications of funds. The study proposes that a bank having consistent growth in both its funds has a perpetual sustenance in its life cycle and that the ranking helps the depositors, the customers and the investors to think better of whether they must consider the consistent growth in the funds while dealing with a bank of their choice.

OBJECTIVES OF THE STUDY

The study is aimed to achieve the following objectives:

- i) To assess the consistent growth in the sources of funds and the applications of funds of the select banks;
- ii) To rank these banks based on the average t-Test value and
- iii) To offer suggestions to the depositors, the customers, the investors and the bankers.

LIMITATIONS OF THE STUDY

The limitation of this study is that as the select PSBs and PvSBs do not represent the entire banking sector in India and do not control the whole economy, and they are regulated and controlled by RBI, the depositors, the customers and the investors may or may not consider the consistent growth in the funds for carrying on their banking activities.

METHODOLOGY

The present study is an analytical attempt to assess the consistent growth in both the funds of banks, the details of which are presented in Table 1. The secondary data collected from websites of respective Banks, Money Control, RBI

Table 1 : Sectorwise Banks And Variables Studied

| Sectorwise Banks | | | Variables |
|--|---|----------------------------|---|
| A) Public Sector Banks (PSBs) | 1 | Bank of Baroda (BOB) | Variables of Sources of Funds (i) Equity share capital, (ii) Reserves, (iii) Deposits, (iv) Borrowings and (v) Other Liabilities and Provisions Variables of Applications of Funds (i) Cash and Balances with RBI; (ii) Balances with other Banks and Money at Call, (iii) Advances, (iv) Investments, (v) Net Block and (vi) Other Assets |
| | 2 | Canara Bank (CAN) | |
| | 3 | Corporation Bank (CORP) | |
| | 4 | Punjab National Bank (PNB) | |
| B) Private Sector Banks (PvSBs) | 1 | AXIS Bank (AXIS) | |
| | 2 | HDFC Bank (HDFC) | |
| | 3 | ICICI Bank (ICICI) | |
| | 4 | ING-Vysya Bank (ING-V) | |

and BSE for the last ten-year period, i.e. from 2000 to 2009 was used. In this study, both the funds mean the sources of funds and the applications of funds.

HYPOTHESES

Based on the objectives of the study, the hypotheses are framed for all the variables of both the funds, and tested with the help of t-Test value, which is used as a yardstick either to accept or to reject them.

Ho = "There is a consistent growth in both the funds of the select banks during the study period."

ANALYSIS AND INTERPRETATION

The data collected are presented in the form of tables, and they are analyzed with the help of statistical tools namely Mean, Standard Deviation (SD), Coefficient of Variation (CV) and t-Test. Only the t-Test value is used to test the hypotheses and for the interpretation of the data. The critical value of t-Test at 5% (i.e. 0.05) level of significance for Two-tailed Test is ± 2.262 with the degrees of freedom = $n-1 = 10-1 = 9$. A hypothesis is accepted or proved if t-Test value $< \pm 2.262$ or it is otherwise rejected or disproved if t-Test value $> \pm 2.262$.

✿ **Variablewise Hypotheses Test:** The hypotheses set for each variable of both the funds were tested with the help of t-Test value. A summary of the hypotheses' test is also presented separately for both the funds.

✿ **Fundswise Hypothesis Test And Ranking:** The hypothesis designed for both the funds were put to the test with the help of the average t-Test value based on which the fundwise ranks were assigned to bank under the study for both the funds independently.

✿ **Final Rank Matrix:** A table of the final rank matrix was constructed to award the sectorwise ranks to the banks, i.e. from I to IV each for four PSBs and four PvSBs.

A) VARIABLE WISE HYPOTHESES TEST FOR FIVE SOURCES OF FUNDS

i) **Equity Share Capital:** The equity share capital bears the brunt of all types of risks associated with business activities, and this is initially invested to begin with. This can be raised up to the limit of the authorized equity share capital. The following hypothesis is tested to find whether there is a consistent growth in the equity share capital of banks during

Table 2 : Equity Share Capital

(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|---------|---------|---------|--------------------------------|---------|---------|--------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 294.33 | 577.87 | 120.00 | 212.24 | 131.90 | 243.28 | 196.82 | 19.76 |
| 2001 | 294.34 | 577.87 | 120.00 | 212.24 | 131.90 | 243.60 | 196.82 | 22.62 |
| 2002 | 294.34 | 577.87 | 143.44 | 212.24 | 191.88 | 281.37 | 220.36 | 22.62 |
| 2003 | 294.34 | 410.00 | 143.44 | 265.30 | 230.19 | 282.05 | 612.66 | 22.62 |
| 2004 | 294.33 | 410.00 | 143.44 | 265.30 | 231.58 | 284.79 | 616.40 | 22.65 |
| 2005 | 294.33 | 410.00 | 143.44 | 315.30 | 273.80 | 309.88 | 736.75 | 22.71 |
| 2006 | 365.53 | 410.00 | 143.44 | 315.30 | 278.69 | 313.14 | 889.83 | 90.72 |
| 2007 | 365.53 | 410.00 | 143.44 | 315.30 | 281.63 | 319.39 | 899.34 | 90.90 |
| 2008 | 365.53 | 410.00 | 143.44 | 315.30 | 357.71 | 354.43 | 1112.68 | 102.47 |
| 2009 | 365.53 | 410.00 | 143.44 | 315.30 | 359.01 | 425.38 | 1113.29 | 102.60 |
| Total | 3228.13 | 4603.61 | 1387.52 | 2743.82 | 2468.29 | 3057.31 | 6594.95 | 519.67 |
| Mean | 322.81 | 460.36 | 138.75 | 274.38 | 246.83 | 305.73 | 659.50 | 51.97 |
| S D | 36.76 | 81.09 | 9.88 | 47.28 | 80.12 | 54.06 | 357.91 | 38.71 |
| C V | 11.39 | 17.61 | 7.12 | 17.23 | 32.46 | 17.68 | 54.27 | 74.49 |
| t-Test | 2.04 | 6.29 | -51.31 | -1.65 | -2.73 | -0.60 | 3.03 | -21.57 |
| Rank | III | VI | VIII | II | IV | I | V | VII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

the study period.

H₀ = "There is a consistent growth in the equity share capital raised by banks."

Table 2 presents that there is a consistent growth in the equity share capital raised by HDFC, PNB and BOB and the hypothesis is accepted because of their respective t-Test values, i.e. - 0.60, -1.65, and $2.04 < +/- 2.262$ and rejected in the case of AXIS, ICICI, CAN, ING-V and CORP as their respective t-Test values, i.e. -2.73, 3.03, 6.29, -21.57 and $-51.31 > +/- 2.262$.

ii) Reserves: The reserves of a bank are the sign of strong financial soundness, and they play a phenomenal role in the banking business. The reasonable and consistent growth, but not the exaggerated one, shows how best a bank uses its resources to optimize the return on capital employed, and thereby, it creates the reserves. The consistent growth in the reserves created by banks is verified with the help of the following hypothesis:

H₀ = "There is a consistent growth in the reserves created by banks".

CAN, HDFC, PNB, BOB and ICICI have a consistent growth in their reserves; but that is not the same case with AXIS, CORP and ING-V (Table 3). Hence, the hypothesis is proven in the case of CAN, HDFC, PNB, BOB and ICICI, since their respective t-Test values, i.e. 0.10, -0.25, 0.96, 1.05 and $1.96 < +/- 2.262$ and disproved in respect of AXIS, CORP and ING-V because their respective t-Test values, i.e. - 3.22, -6.30 and $-19.43 > - 2.262$.

Table 3 : Reserves (₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|---------|---------------------|----------|----------|----------|--------------------------------|----------|-----------|---------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 2940.27 | 1880.14 | 1024.76 | 1705.13 | 107.64 | 521.82 | 952.69 | 430.54 |
| 2001 | 3061.94 | 2103.40 | 1227.70 | 2110.29 | 169.55 | 669.49 | 1092.26 | 630.12 |
| 2002 | 3533.42 | 2764.80 | 1902.80 | 2665.82 | 422.95 | 1660.91 | 5635.54 | 663.72 |
| 2003 | 4092.63 | 3614.13 | 2226.76 | 3438.11 | 687.92 | 1962.78 | 6320.65 | 557.14 |
| 2004 | 4836.40 | 4720.88 | 2625.21 | 4425.47 | 904.84 | 2407.09 | 7394.16 | 605.13 |
| 2005 | 5333.23 | 5582.04 | 2911.48 | 7533.50 | 2134.39 | 4209.97 | 11813.20 | 569.23 |
| 2006 | 7478.91 | 6608.86 | 3231.45 | 8758.68 | 2593.50 | 4986.39 | 21316.16 | 817.41 |
| 2007 | 8284.41 | 7701.11 | 3622.02 | 9826.31 | 3120.58 | 6113.76 | 23413.92 | 901.60 |
| 2008 | 10678.40 | 7885.63 | 4085.07 | 10467.35 | 8410.79 | 11142.80 | 45357.53 | 1323.67 |
| 2009 | 12470.01 | 9629.61 | 4753.07 | 12824.59 | 9854.58 | 14226.43 | 48419.73 | 1491.52 |
| Total | 62709.62 | 52490.60 | 27610.32 | 63755.25 | 28406.74 | 47901.44 | 171715.84 | 7990.08 |
| Mean | 6270.96 | 5249.06 | 2761.03 | 6375.53 | 2840.67 | 4790.14 | 17171.58 | 799.01 |
| SD | 3332.24 | 2676.67 | 1207.05 | 3992.49 | 3491.11 | 4596.98 | 17396.58 | 911.73 |
| CV | 53.14 | 50.99 | 43.72 | 62.62 | 122.90 | 95.97 | 101.31 | 114.11 |
| t- Test | 1.05 | 0.10 | -6.30 | 0.96 | -3.22 | -0.25 | 1.96 | -19.43 |
| Rank | IV | I | VII | III | VI | II | V | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE.

iii) Deposits: The core activity of banking business is to pool the funds through various deposits schemes from the public who have the surplus income, and the same is lent to the needy borrowers on fair and reasonable terms and conditions that every bank must adapt while disbursing the loans and advances. The steady and consistent rise in the size of deposits is an indicator of how distinctly a bank pools the funds. The following hypothesis is framed to determine whether there is a consistent growth in the deposits of banks.

H₀ = "There is a consistent growth in the deposits mobilized by the banks".

Table 4 reveals that there is a consistent growth in the deposits mobilized by HDFC, PNB, BOB, AXIS, CAN and ICICI, and this hypothesis is validated by their respective t-Test values i.e. -0.33, 0.58, 0.72, -1.18, 1.26 and $2.02 < +/- 2.262$ and invalidated in respect of CORP and ING-V since their respective t-Test values i.e. -8.48 and $-22.29 > - 2.262$.

iv) Borrowings: In addition to mobilizing the deposits, banks borrow the required amount of funds from RBI as well as

Table 4 : Deposits

(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|------------|-----------|------------|--------------------------------|-----------|------------|-----------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 51308.19 | 48001.36 | 14279.63 | 47483.23 | 5720.00 | 8427.72 | 9866.02 | 7424.00 |
| 2001 | 53985.78 | 59069.53 | 16560.14 | 56131.13 | 9092.20 | 11658.11 | 16378.21 | 8141.11 |
| 2002 | 61804.46 | 64030.01 | 18924.57 | 64123.48 | 12287.21 | 17653.81 | 32085.11 | 8068.28 |
| 2003 | 66366.37 | 72094.82 | 21724.57 | 75813.50 | 16964.72 | 22376.07 | 48169.31 | 9186.62 |
| 2004 | 72967.32 | 86344.56 | 23190.93 | 87916.40 | 20953.90 | 30408.86 | 68108.58 | 10478.07 |
| 2005 | 81333.46 | 96908.42 | 27233.16 | 103166.89 | 31712.00 | 36354.25 | 99818.78 | 12569.31 |
| 2006 | 93661.99 | 116803.23 | 32876.53 | 119684.92 | 40113.53 | 55796.82 | 165083.17 | 13335.26 |
| 2007 | 124915.98 | 142381.45 | 42356.89 | 139859.67 | 58785.60 | 68297.94 | 230510.19 | 15418.59 |
| 2008 | 152034.13 | 154072.42 | 55424.42 | 166457.23 | 87626.22 | 100768.60 | 244431.05 | 20498.06 |
| 2009 | 192396.95 | 186892.51 | 73983.91 | 209760.50 | 117374.11 | 142811.58 | 218347.82 | 24889.92 |
| Total | 950774.63 | 1026598.31 | 326554.75 | 1070396.95 | 400629.49 | 494553.76 | 1132798.24 | 130009.22 |
| Mean | 95077.46 | 102659.83 | 32655.48 | 107039.70 | 40062.95 | 49455.38 | 113279.82 | 13000.92 |
| S D | 46928.95 | 46103.33 | 19276.82 | 124378.57 | 37220.60 | 43633.10 | 92978.14 | 5808.64 |
| CV | 49.36 | 44.91 | 59.03 | 116.20 | 92.91 | 88.23 | 82.08 | 44.68 |
| t-Test | 0.72 | 1.26 | -8.48 | 0.58 | -1.18 | -0.33 | 2.02 | -22.29 |
| Rank | III | V | VII | II | IV | I | VI | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE.

from other banks to meet the demand for advances. The consistent growth in the borrowings of banks is assessed with the help of the following hypothesis.

H_0 = "There is a consistent growth in the funds borrowed by banks".

BOB, CAN, PNB and CORP have a consistent growth in their borrowings; but it is not so in respect of ICICI, AXIS,

Table 5 : Borrowings

(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|----------|----------|----------|--------------------------------|----------|-----------|----------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 368.67 | 1324.16 | 296.28 | 662.43 | 531.02 | 1578.74 | 491.47 | 292.07 |
| 2001 | 936.27 | 1547.85 | 594.95 | 673.20 | 1146.02 | 1432.90 | 1032.79 | 739.29 |
| 2002 | 692.65 | 267.40 | 1423.55 | 408.57 | 1245.81 | 2023.02 | 49218.66 | 1202.48 |
| 2003 | 625.33 | 93.82 | 803.34 | 662.16 | 719.31 | 2284.65 | 34302.42 | 933.85 |
| 2004 | 875.11 | 754.90 | 934.13 | 1289.06 | 527.75 | 2907.82 | 30740.24 | 964.34 |
| 2005 | 1640.83 | 114.16 | 1297.89 | 2718.29 | 1781.41 | 5290.01 | 33544.50 | 830.78 |
| 2006 | 4802.20 | 25.82 | 1660.08 | 6687.18 | 2680.93 | 4560.48 | 38521.91 | 1107.45 |
| 2007 | 1142.56 | 1574.35 | 3021.01 | 1948.86 | 5195.60 | 2815.39 | 51256.03 | 843.55 |
| 2008 | 3927.05 | 2517.23 | 2137.60 | 5446.56 | 5624.04 | 4478.86 | 65648.43 | 1249.81 |
| 2009 | 5636.09 | 7056.61 | 2072.40 | 4374.36 | 10185.48 | 2685.84 | 67323.69 | 2152.42 |
| Total | 20646.76 | 15276.30 | 14241.23 | 24870.67 | 29637.37 | 30057.71 | 372080.14 | 10316.04 |
| Mean | 2064.68 | 1527.63 | 1424.12 | 2487.07 | 2963.74 | 3005.77 | 37208.01 | 1031.60 |
| S D | 1951.25 | 2110.49 | 825.69 | 2261.01 | 3141.74 | 1331.22 | 23044.85 | 478.53 |
| C V | 94.51 | 138.15 | 57.98 | 90.91 | 106.01 | 44.29 | 61.94 | 46.39 |
| t-Test | 0.31 | -0.52 | -1.73 | 0.85 | -8.14 | -19.11 | 3.59 | -66.21 |
| Rank | I | II | IV | III | VI | VII | V | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

HDFC and ING-V (Table 5). Thus, the hypothesis is proved in respect of BOB, CAN, PNB and CORP because their respective t-Test values i.e. 0.31, -0.52, 0.85 and -1.73 $< +/ - 2.262$ and disproved in the case of ICICI, AXIS, HDFC and ING-V as their respective t-Test values i.e. 3.59, -8.14, -19.11 and -66.21 $> +/ - 2.262$.

v) Other Liabilities and Provisions: In course of business activities, the other liabilities and provisions are owed and made respectively for payables within one-year time. The consistent growth in the other liabilities and provisions is tested with the help of the following hypothesis:

H₀ = "There is a consistent growth in the other liabilities owed and provisions made by banks".

There is a consistent growth in the other liabilities owed and provisions made by HDFC, BOB, CAN, and PNB but it is not so in respect of ICICI, AXIS, CORP and ING-V (Table 6). Hence, the hypothesis is justified for HDFC, BOB, CAN, and PNB as their respective t-Test values i.e. - 0.32, 0.59, 0.77 and 1.56 $< +/ - 2.262$ and rejected in respect of ICICI, AXIS, CORP and ING-V because their respective t-Test values i.e. 2.79, -5.03, -7.82 and -28.34 $> +/ - 2.262$.

Table 6: Other Liabilities and Provisions

(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|----------|----------|----------|--------------------------------|----------|-----------|----------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 3693.71 | 2481.09 | 1041.62 | 3710.33 | 178.41 | 884.58 | 565.63 | 629.46 |
| 2001 | 5043.71 | 3088.82 | 1200.42 | 4031.58 | 226.23 | 1602.56 | 1012.97 | 615.61 |
| 2002 | 4585.19 | 4366.24 | 1210.15 | 5001.93 | 226.66 | 2159.22 | 16207.58 | 761.24 |
| 2003 | 5039.17 | 5717.46 | 1373.86 | 5713.15 | 1009.40 | 3511.62 | 17056.93 | 769.74 |
| 2004 | 6135.31 | 7188.30 | 2259.98 | 8114.48 | 1530.46 | 6296.98 | 18019.49 | 1008.59 |
| 2005 | 6062.19 | 7173.63 | 2337.88 | 12194.80 | 1828.68 | 5264.46 | 21396.17 | 1115.18 |
| 2006 | 7083.90 | 8860.57 | 2595.14 | 9518.93 | 4051.03 | 7849.49 | 25227.88 | 1304.29 |
| 2007 | 8437.70 | 11651.25 | 3577.29 | 10178.51 | 5873.80 | 13689.13 | 38228.64 | 1920.87 |
| 2008 | 12594.41 | 13438.55 | 4807.14 | 14798.23 | 7556.90 | 16431.91 | 42895.39 | 2256.39 |
| 2009 | 16538.15 | 13488.91 | 5952.99 | 18130.13 | 9947.67 | 22720.62 | 43746.43 | 3111.75 |
| Total | 75213.44 | 77454.82 | 26356.47 | 91392.07 | 32429.24 | 80410.57 | 224357.11 | 13493.12 |
| Mean | 7521.34 | 7745.48 | 2635.65 | 9139.21 | 3242.92 | 8041.06 | 22435.71 | 1349.31 |
| S D | 4050.95 | 4047.83 | 1668.77 | 4817.65 | 3474.50 | 7275.27 | 15475.77 | 827.77 |
| C V | 53.86 | 52.26 | 63.32 | 52.71 | 107.14 | 90.48 | 68.98 | 61.35 |
| t-Test | 0.59 | 0.77 | -7.82 | 1.56 | -5.03 | -0.32 | 2.79 | -28.34 |
| Rank | II | III | VII | IV | VI | I | V | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE.

B) SUMMARY OF HYPOTHESES TESTED

The hypotheses tested above for five variables of the sources of funds of all banks are summarized hereunder in Table 7.

Table 7 : Summary of Hypotheses Tested

| Variables | Hypotheses | | | |
|-----------|------------------------|----------------------|--------------|-----------------------------|
| | Accepted | | Rejected | |
| | PSBs | PvSBs | PSBs | PvSBs |
| (i) | BOB and PNB | HDFC | CAN and CORP | AXIS, ICICI and ING-V |
| (ii) | BOB, CAN and PNB | HDFC and ICICI | CORP | AXIS and ING-V |
| (iii) | BOB, CAN and PNB | AXIS, HDFC and ICICI | CORP | ING-V |
| (iv) | BOB, CAN, CORP and PNB | Nil | Nil | AXIS, HDFC, ICICI and ING-V |
| (v) | BOB, CAN and PNB | HDFC | CORP | AXIS, ICICI and ING-V |

Sources: Compiled from Tables 2 to 6

1) With regard to PSBs, the hypotheses set for five variables of sources of funds i.e. from (i) to (v) are proved for BOB and PNB, (ii) to (v) for CAN and (iv) for CORP.

2) With regard to PvSBs, the hypotheses designed for five variables of sources of funds i.e. from (i) to (iii) and (v) are valid for HDFC, (ii) and (iii) for ICICI and (iii) for AXIS. But, the hypothesis set for variable i.e. (iv) is not proved in respect of any one of PvSBs.

C) VARIABLE WISE HYPOTHESES TEST FOR SIX APPLICATIONS OF FUNDS

i) Cash And Balances With RBI: All banks are required to maintain the cash and balances with RBI as per the prevailing norms. The following hypothesis is constructed to find whether there is a consistent growth in the cash and balances with RBI.

H_0 = "There is a consistent growth in the cash and balances maintained by banks with RBI".

Table 8 reveals that there is a consistent growth in the cash and balances with RBI maintained by HDFC, CAN, AXIS, BOB, ICICI and PNB. Hence, the hypothesis is validated by their respective t-Test values i.e. -0.08, 1.02, -1.19, -1.58, 1.64 and 2.19 < +/- 2.262, but it is not validated in respect of CORP and ING-V since their respective t-Test values i.e. -5.76 and -19.47 > +/- 2.262.

Table 8 : Cash and Balances with RBI

(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|---------------|---------------------|-----------------|-----------------|------------------|--------------------------------|-----------------|-----------------|----------------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 3505.52 | 3838.43 | 1161.67 | 5477.40 | 400.90 | 849.82 | 721.89 | 611.70 |
| 2001 | 4369.78 | 3886.36 | 1087.77 | 5365.62 | 881.28 | 986.35 | 1231.66 | 663.12 |
| 2002 | 2581.07 | 7859.86 | 1336.24 | 5101.43 | 1123.32 | 1211.17 | 1774.47 | 548.12 |
| 2003 | 3465.82 | 5607.51 | 1283.94 | 6568.53 | 1600.03 | 2081.96 | 4886.14 | 511.19 |
| 2004 | 3056.78 | 6890.94 | 1694.37 | 6742.28 | 3776.94 | 2541.98 | 5408.00 | 625.84 |
| 2005 | 2712.32 | 4984.38 | 1920.89 | 9460.20 | 3448.74 | 2650.13 | 6344.90 | 666.67 |
| 2006 | 3333.43 | 7914.00 | 1639.79 | 23394.56 | 2429.40 | 3306.61 | 8934.37 | 841.65 |
| 2007 | 6413.52 | 9095.19 | 2983.67 | 12372.03 | 4661.03 | 5182.48 | 18706.88 | 945.81 |
| 2008 | 9369.72 | 13364.79 | 7103.53 | 15258.15 | 7305.66 | 12553.18 | 29377.53 | 2263.53 |
| 2009 | 10596.34 | 10036.79 | 5590.60 | 17058.25 | 9419.21 | 13527.21 | 17536.33 | 1791.02 |
| Total | 49404.30 | 73478.25 | 25802.47 | 106798.45 | 35046.51 | 44890.89 | 94922.17 | 9468.65 |
| Mean | 4940.43 | 7347.83 | 2580.25 | 10679.85 | 3504.65 | 4489.09 | 9492.22 | 946.87 |
| S D | 2886.73 | 2984.99 | 2088.51 | 6204.77 | 2940.40 | 4688.30 | 9415.56 | 594.47 |
| C V | 58.43 | 40.62 | 80.94 | 58.10 | 83.90 | 104.44 | 99.19 | 62.78 |
| t-Test | -1.58 | 1.02 | -5.76 | 2.19 | -1.19 | -0.08 | 1.64 | -19.47 |
| Rank | IV | II | VII | VI | III | I | V | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

ii) Balances with other Banks and Money at Call: A bank maintains balances with other banks when it has surplus funds not required immediately. The consistent growth in the balances with other banks and money at call is put to the test by the following hypothesis.

H_0 = "There is a consistent growth in the balances with other banks and money at call".

CAN and AXIS have a consistent growth in the balances with other banks and money at call; but it is not so in respect of other banks (Table 9). Thus, the hypothesis is valid for CAN and AXIS because their respective t-Test values i.e. 1.04, and -1.74, < +/- 2.262 whereas, it is invalid for HDFC, ICICI BOB, CORP PNB and ING-V as their respective t-Test values i.e. -2.37, 2.54, 3.66, -5.86, -6.20 and -21.76 > +/- 2.262.

iii) Advances: Banks employ their funds by way of advances; the secured or unsecured with reasonable terms of

Table 9 : Balances With Banks And Money At Call
(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|----------|----------|----------|--------------------------------|----------|----------|---------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 8971.36 | 3706.82 | 1120.17 | 752.58 | 492.05 | 767.82 | 2693.27 | 831.59 |
| 2001 | 8066.58 | 9284.88 | 2096.61 | 703.59 | 330.50 | 1625.30 | 2362.03 | 1463.36 |
| 2002 | 6366.34 | 4637.84 | 2009.88 | 1296.89 | 628.12 | 2247.02 | 11011.88 | 1062.54 |
| 2003 | 3351.28 | 2089.64 | 1145.10 | 1508.66 | 1969.68 | 1087.26 | 1602.86 | 727.47 |
| 2004 | 4210.03 | 5136.08 | 1141.83 | 2078.23 | 1886.27 | 1115.57 | 3062.64 | 379.00 |
| 2005 | 6541.88 | 3684.35 | 1659.75 | 1628.83 | 1827.27 | 1823.87 | 6585.07 | 564.74 |
| 2006 | 10121.21 | 4909.56 | 2448.90 | 1397.14 | 1212.45 | 3612.39 | 8105.85 | 281.68 |
| 2007 | 11866.85 | 7278.74 | 3735.22 | 3273.49 | 2257.27 | 3971.40 | 18414.45 | 645.89 |
| 2008 | 12929.56 | 4513.25 | 1812.32 | 3572.57 | 5198.58 | 2225.16 | 8663.60 | 921.23 |
| 2009 | 13490.77 | 6622.99 | 4949.09 | 4354.89 | 5597.69 | 3979.41 | 12430.23 | 491.23 |
| Total | 85915.86 | 51864.15 | 22118.87 | 20566.87 | 21399.88 | 22455.20 | 74931.88 | 7368.73 |
| Mean | 8591.59 | 5186.42 | 2211.89 | 2056.69 | 2139.99 | 2245.52 | 7493.19 | 736.87 |
| S D | 3529.54 | 2057.71 | 1241.07 | 1251.13 | 1845.46 | 1211.89 | 5398.49 | 351.25 |
| C V | 41.08 | 39.67 | 56.11 | 60.83 | 86.24 | 53.97 | 72.05 | 47.67 |
| t-Test | 3.66 | 1.04 | -5.86 | -6.20 | -1.74 | -2.37 | 2.54 | -21.76 |
| Rank | V | I | VI | VII | II | III | IV | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE.

Table 10: Advances
(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|-----------|-----------|-----------|--------------------------------|-----------|------------|----------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| 2000 | 24392.91 | 23546.73 | 7777.47 | 22571.72 | 3506.62 | 3362.27 | 3657.34 | 3937.75 |
| 2001 | 27420.68 | 27831.77 | 8666.10 | 28029.05 | 4821.12 | 4636.66 | 7031.46 | 4316.31 |
| 2002 | 33662.99 | 33126.71 | 10987.41 | 34369.42 | 5352.30 | 6813.72 | 47034.87 | 4418.33 |
| 2003 | 35348.08 | 40471.60 | 12029.17 | 40228.12 | 7179.92 | 11754.86 | 53279.41 | 5611.61 |
| 2004 | 35600.88 | 47638.63 | 13889.72 | 47224.72 | 9362.95 | 17744.51 | 62095.52 | 7046.51 |
| 2005 | 43400.38 | 60421.40 | 18546.38 | 60412.75 | 15602.92 | 25566.30 | 91405.15 | 9080.59 |
| 2006 | 59911.78 | 79425.70 | 23962.43 | 74627.37 | 22314.23 | 35061.26 | 146163.11 | 10231.53 |
| 2007 | 83620.87 | 98505.69 | 29949.65 | 96596.52 | 36876.48 | 46944.78 | 195865.60 | 11976.17 |
| 2008 | 106701.32 | 107238.04 | 39185.57 | 119501.57 | 59661.14 | 63426.90 | 225616.08 | 14649.55 |
| 2009 | 143985.90 | 138219.40 | 48512.16 | 154702.99 | 81556.77 | 98883.05 | 218310.85 | 16750.93 |
| Total | 594045.79 | 656425.67 | 213506.06 | 678264.23 | 246234.45 | 314194.31 | 1050459.39 | 88019.28 |
| Mean | 59404.58 | 65642.57 | 21350.61 | 67826.42 | 24623.45 | 31419.43 | 105045.94 | 8801.93 |
| S D | 39847.70 | 38746.35 | 13902.60 | 43568.69 | 26775.76 | 30818.53 | 85158.21 | 4544.04 |
| C V | 67.08 | 59.03 | 65.12 | 64.24 | 108.74 | 98.09 | 81.07 | 51.63 |
| t-Test | 0.46 | 0.99 | -7.32 | 1.04 | -2.11 | -1.13 | 2.32 | -23.43 |
| Rank | I | II | VII | III | V | IV | VI | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

repayment in installments and these advances generate a lion share of income for them. A hypothesis for testing the consistent growth in the advances made by banks is set as under:

H_0 = "There is a consistent growth in the advances made by banks".

There is a consistent growth in the advances made by BOB, CAN, PNB, HDFC, and AXIS (Table 10); the hypothesis is also proved by their respective t-Test values i.e. 0.46, 0.99, 1.04, -1.13 and -2.11 < +/- 2.262. On the other hand, this hypothesis is disproved in respect of ICICI, CORP and ING-V because their respective t-Test values i.e. 2.32, -7.32 and -23.43 > +/- 2.262.

iv) Investments: In addition to the advances made, the banks invest the access funds in various investment avenues; and thereby receive interest or dividends. The consistent growth in the investments of banks is examined with the help of the following hypothesis.

H₀ = "There is a consistent growth in the investments made by banks in various portfolios".

Table 11 presents that there is a consistent growth in the investments made by HDFC, BOB, CAN and AXIS, but it is not the same case with PNB, ICICI, CORP and ING-V. The hypothesis is valid for HDFC, BOB, CAN and AXIS since their respective t-Test values i.e. -0.18, 0.88, 1.37 and -1.79 < +/- 2.262 and invalid for PNB, ICICI, CORP and ING-V as their respective t-Test values i.e. 2.41, 2.52, -10.5 and -28.64 > +/- 2.262.

Table 11: Investments

(₹ in crore)

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|-----------|-----------|-----------|--------------------------------|-----------|-----------|----------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 18556.50 | 20022.80 | 5962.43 | 22099.07 | 2065.15 | 5748.28 | 4416.68 | 2735.65 |
| 2001 | 19857.12 | 21445.46 | 6860.34 | 25128.42 | 4192.62 | 7145.14 | 8186.86 | 2683.92 |
| 2002 | 23833.13 | 23220.11 | 8056.49 | 28207.17 | 6630.22 | 12004.02 | 35891.08 | 3597.20 |
| 2003 | 30179.38 | 30458.24 | 10669.90 | 34030.05 | 7841.02 | 13388.08 | 35462.30 | 3640.54 |
| 2004 | 38018.81 | 35792.99 | 10685.04 | 42125.49 | 7792.76 | 19256.79 | 42742.86 | 4085.24 |
| 2005 | 37074.44 | 38053.88 | 10261.11 | 50672.83 | 14274.95 | 19349.81 | 50487.35 | 4085.16 |
| 2006 | 35114.22 | 36974.18 | 10652.00 | 41055.31 | 21527.35 | 28393.96 | 71547.39 | 4372.34 |
| 2007 | 34943.63 | 45225.54 | 14417.49 | 45189.84 | 26897.16 | 30564.80 | 91257.84 | 4527.81 |
| 2008 | 43870.07 | 49811.57 | 16512.38 | 53991.71 | 33705.10 | 49393.54 | 111454.34 | 6293.32 |
| 2009 | 52445.88 | 57776.90 | 24937.77 | 63385.18 | 46330.35 | 58817.55 | 103058.31 | 10495.54 |
| Total | 333893.18 | 358781.67 | 119014.95 | 405885.07 | 171256.68 | 244061.97 | 554505.01 | 46516.72 |
| Mean | 33389.32 | 35878.17 | 11901.50 | 40588.51 | 17125.67 | 24406.20 | 55450.50 | 4651.67 |
| S D | 10636.20 | 12544.62 | 5580.26 | 13341.52 | 14637.54 | 17750.42 | 37639.71 | 2291.49 |
| C V | 31.86 | 34.96 | 46.89 | 32.87 | 85.47 | 72.73 | 67.88 | 49.26 |
| t-Test | 0.88 | 1.37 | -10.50 | 2.41 | -1.79 | -0.18 | 2.52 | -28.64 |
| Rank | II | III | VII | V | IV | I | VI | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

v) Net Block: Every bank requires the fixed assets like premises, computers, and furniture to smoothly conduct its day-to-day banking business and the depreciation is charged against these assets at the end of a financial year. Hence, net block means the fixed assets net of depreciation. The following hypothesis is framed to test whether there is a consistent growth in the net block of banks or not.

H₀ = "There is a consistent growth in the net block of banks".

BOB, PNB and CAN have a consistent growth in their net block (Table 12) and the hypothesis is valid for them as their respective t-Test values i.e. 0.68, 1.03 and 1.07 < 2.262; but is not valid for HDFC, ICICI, AXIS, CORP and ING-V because their respective t-Test values i.e. -3.20, 4.17, -7.95, -45.98 and -113.97 > +/- 2.262.

vi) Other Assets: Other assets of a bank form bills receivable, cash on hand, prepaid expenses, etc. A hypothesis is set to assess whether there is a consistent growth in the other assets of banks.

H₀ = "There is a consistent growth in the other assets owned by banks".

Table 13 depicts that there is a consistent growth in the other assets owned by CAN; thus the hypothesis is justified by its t-Test value i.e. 0.47 < 2.262 whereas it is not justified in the case of HDFC, ICICI, PNB, BOB, AXIS, CORP and

Table 12 : Net Block**(₹ in crore)**

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|----------|---------|----------|--------------------------------|---------|----------|---------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 607.76 | 559.68 | 143.48 | 680.52 | 75.21 | 236.76 | 222.12 | 330.43 |
| 2001 | 647.07 | 649.65 | 171.96 | 723.91 | 216.72 | 289.74 | 381.13 | 346.79 |
| 2002 | 692.39 | 659.01 | 199.34 | 758.46 | 231.66 | 371.10 | 4239.35 | 338.63 |
| 2003 | 697.32 | 659.62 | 232.94 | 884.70 | 282.05 | 528.58 | 4060.72 | 314.20 |
| 2004 | 815.27 | 680.19 | 249.41 | 899.85 | 408.93 | 616.91 | 4056.41 | 330.19 |
| 2005 | 860.80 | 672.81 | 256.20 | 965.23 | 502.80 | 708.32 | 4038.04 | 306.52 |
| 2006 | 920.73 | 688.47 | 255.85 | 1030.23 | 553.35 | 855.08 | 3980.72 | 293.21 |
| 2007 | 1088.81 | 2861.35 | 281.04 | 1009.82 | 648.38 | 966.67 | 3923.42 | 286.73 |
| 2008 | 2427.00 | 2916.87 | 271.75 | 2315.52 | 794.37 | 1175.13 | 4108.89 | 277.51 |
| 2009 | 2309.72 | 2929.46 | 298.92 | 2397.11 | 1015.41 | 1706.73 | 3801.62 | 285.32 |
| Total | 11066.87 | 13277.11 | 2360.89 | 11665.35 | 4728.88 | 7455.02 | 32812.42 | 3109.53 |
| Mean | 1106.69 | 1327.71 | 236.09 | 1166.54 | 472.89 | 745.50 | 3281.24 | 310.95 |
| S D | 680.70 | 1087.46 | 49.73 | 638.34 | 290.27 | 452.30 | 1575.00 | 24.74 |
| C V | 61.51 | 81.90 | 21.06 | 54.72 | 61.38 | 60.67 | 48.00 | 7.96 |
| t-Test | 0.68 | 1.07 | -45.98 | 1.03 | -7.95 | -3.20 | 4.17 | -113.97 |
| Rank | I | III | VII | II | VI | IV | V | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

Table 13 : Other Assets**(₹ in crore)**

| Year | Public Sector Banks | | | | Scheduled Private Sector Banks | | | |
|--------|---------------------|----------|----------|----------|--------------------------------|----------|-----------|---------|
| | BOB | CAN | CORP | PNB | AXIS | HDFC | ICICI | ING-V |
| 2000 | 2571.12 | 2728.04 | 597.08 | 2547.28 | 119.37 | 691.19 | 356.14 | 488.66 |
| 2001 | 2960.82 | 3422.53 | 820.42 | 3554.51 | 305.91 | 934.14 | 524.23 | 675.24 |
| 2002 | 3774.16 | 2631.63 | 1014.84 | 3181.28 | 380.08 | 1140.35 | 4158.28 | 753.53 |
| 2003 | 3375.96 | 2768.32 | 910.91 | 3001.75 | 716.20 | 1583.34 | 7364.31 | 761.40 |
| 2004 | 3406.89 | 3400.57 | 1493.33 | 3261.18 | 896.10 | 1031.23 | 7769.45 | 727.31 |
| 2005 | 4074.41 | 2488.34 | 1279.53 | 3101.44 | 2071.38 | 1330.57 | 8702.59 | 645.88 |
| 2006 | 3991.16 | 2909.95 | 1547.66 | 3762.79 | 1679.98 | 2277.09 | 12509.57 | 634.06 |
| 2007 | 5212.50 | 2994.53 | 1353.58 | 3980.80 | 1892.07 | 3605.48 | 16300.26 | 794.65 |
| 2008 | 4301.83 | 2684.17 | 1712.12 | 4380.84 | 2784.51 | 4402.69 | 20574.63 | 1013.06 |
| 2009 | 4578.12 | 4060.26 | 2617.26 | 5020.20 | 3745.15 | 6356.83 | 24163.62 | 1891.07 |
| Total | 38246.97 | 30088.34 | 13346.73 | 35792.07 | 14590.75 | 23352.91 | 102423.08 | 8384.86 |
| Mean | 3824.70 | 3008.83 | 1334.67 | 3579.21 | 1459.08 | 2335.29 | 10242.31 | 838.49 |
| S D | 782.27 | 482.51 | 572.69 | 730.35 | 1190.32 | 1868.85 | 8085.38 | 393.53 |
| C V | 20.45 | 16.04 | 42.91 | 20.41 | 81.58 | 80.03 | 78.94 | 46.93 |
| t-Test | 3.59 | 0.47 | -8.85 | 2.78 | -6.00 | -2.34 | 2.55 | -23.14 |
| Rank | V | I | VII | IV | VI | II | III | VIII |

Sources: Compiled from Websites of Respective Banks, Money Control, RBI and BSE

ING-V as their respective t-Test values i.e. -2.34, 2.55, 2.78, 3.59, -6.00, -8.85 and -23.14 > +/- 2.262.

Table 14: Summary of Hypotheses Tested

| Variables | Hypotheses | | | |
|-----------|-------------------|----------------------|-------------------|-----------------------------|
| | Accepted | | Rejected | |
| | PSBs | PvSBs | PSBs | PvSBs |
| (i) | BOB, CAN and PNB | AXIS, HDFC and ICICI | CORP | ING-V |
| (ii) | CAN | AXIS | BOB, CORP and PNB | HDFC, ICICI and ING-V |
| (iii) | BOB, CAN, and PNB | AXIS and HDFC, | CORP | ICICI and ING-V |
| (iv) | BOB and CAN | AXIS and HDFC, | CORP and PNB | ICICI and ING-V |
| (v) | BOB, CAN and PNB | — | CORP | AXIS, HDFC, ICICI and ING-V |
| (vi) | CAN | — | BOB, CORP and PNB | AXIS, HDFC, ICICI and ING-V |

Sources: Compiled from 8 to 12 .

D) SUMMARY OF HYPOTHESES TESTED

The Hypotheses Tested For Six Variables Of Applications Of Funds Of Banks Are Summed Up in Table 14:

a) With regard to PSBs, the hypotheses set for six variables of applications of funds i.e. from (i) to (vi) are proved for CAN, (i), from (iii) to (v) for BOB and (ii), (iii) and (v) for PNB. However, no hypothesis is valid in respect of CORP.

b) With regard to PvSBs, the hypotheses is designed for out of six variables of applications of funds i.e. from (i) to (iv) are substantiated for AXIS, (i), (iii) and (iv) for HDFC and (i) for ICICI. But, the hypotheses set for variables i.e. (v) and (vi) are not validated for any one of PvSBs.

E) FUNDS WISE HYPOTHESES TEST AND RANKING OF BANKS BASED ON THE AVERAGE T-TEST VALUE FOR FIVE VARIABLES OF SOURCES OF FUNDS

Every business requires the sources of funds to carry on its activities smoothly, but the quantum differs from one another. The average t-Test value helps us trace whether there is a consistent growth in the all sources of funds of banks. The following hypothesis is designed to test the consistent growth in the all sources of funds covered in this study.

H₀ = “There is a consistent growth in the all sources of funds of banks”.

Table 15: Average t-Test Value For Five Variables Of Sources Of Funds

| Variables | Banks | | | | | | | |
|----------------------|---------------------|-------|--------|-------|----------------------|--------|-------|---------|
| | Public Sector Banks | | | | Private Sector Banks | | | |
| | BOB | CAN | CORP | P N | AXIS | HDFC | ICICI | ING-V |
| (i) | 2.04 | 6.29 | -51.31 | -1.65 | -2.73 | -0.60 | 3.03 | -21.57 |
| (ii) | 1.05 | 0.10 | -6.30 | 0.96 | -3.22 | -0.25 | 1.96 | -19.43 |
| (iii) | 0.72 | 1.26 | -8.48 | 0.58 | -1.18 | -0.33 | 2.02 | -22.29 |
| (iv) | 0.32 | -0.52 | -1.73 | 0.85 | -8.14 | -19.11 | 3.59 | -66.21 |
| (v) | 0.59 | 0.77 | -7.82 | 1.56 | -5.03 | -0.32 | 2.79 | -28.34 |
| Sum | 4.72 | 7.90 | -75.64 | 2.30 | -20.30 | -20.61 | 13.39 | -157.84 |
| Average t-Test Value | 0.94 | 1.58 | -15.13 | 0.46 | -4.06 | -4.12 | 2.68 | -31.57 |
| Rank | II | III | VII | I | V | VI | IV | VIII |

Sources: Compiled from Tables 2 to 6.

Table 15 presents that there is a consistent growth in the all sources of funds of PNB, BOB, and CAN. Hence, the hypothesis that there is a consistent growth in the all sources of funds is valid for these PSBs since their respective average t-Test values i.e. 0.46, 0.94 and 1.58 < 2.262. On the other hand, this hypothesis is invalid for ICICI, AXIS, HDFC, CORP and ING-V because their respective average t-Test values i.e. 2.68, -4.06, -4.12, -15.13 and 31.57

> +/- 2.262. PNB, BOB, and CAN that are ranked I, II and III respectively, have more perpetual sources of funds and thus, they bear the adverse impact on their sources of funds during the recession period. On the other hand, the business activities of ICICI, AXIS, HDFC, CORP and ING-V, that are awarded the ranks from IV to VIII respectively, may get affected adversely during the period of crisis.

F) FUNDS WISE HYPOTHESES TEST AND RANKING BASED ON THE AVERAGE T-TEST VALUE FOR SIX VARIABLES OF APPLICATIONS OF FUNDS

The banks apply the sources of funds in various forms namely advances, investments, etc and they do not face many problems, if all the funds are invested in a judicious manner at the time of downturn. The consistent growth in the applications of funds of banks covered in this study is put to the test by using the following hypothesis:

H_0 = "There is a consistent growth in the all applications of funds of banks".

Table 16 : Average t-Test Value For Six Variables Of Applications Of Funds

| Variables | Banks | | | | | | | |
|---------------------|---------------------|------|--------|-------|----------------------|-------|-------|---------|
| | Public Sector Banks | | | | Private Sector Banks | | | |
| | BOB | CAN | CORP | P N | AXIS | HDFC | ICICI | ING-V |
| (i) | -1.58 | 1.02 | -5.76 | 2.19 | -1.19 | -0.08 | 1.64 | -19.47 |
| (ii) | 3.66 | 1.04 | -5.86 | -6.20 | -1.74 | -2.37 | 2.54 | -21.76 |
| (iii) | 0.46 | 0.99 | -7.32 | 1.04 | -2.11 | -1.13 | 2.32 | -23.43 |
| (iv) | 0.88 | 1.37 | -10.50 | 2.41 | -1.79 | -0.18 | 2.52 | -28.64 |
| (v) | 0.68 | 1.07 | -45.98 | 1.03 | -7.95 | -3.20 | 4.17 | -113.97 |
| (vi) | 3.59 | 0.47 | -8.85 | 2.78 | -6.00 | -2.34 | 2.55 | -23.14 |
| Sum | 7.69 | 5.96 | -84.27 | 3.25 | -20.78 | -9.30 | 15.74 | -230.41 |
| Averaget-Test Value | 1.28 | 0.99 | -14.05 | 0.54 | -3.46 | -1.55 | 2.62 | -38.40 |
| Rank | III | II | VII | I | VI | IV | V | VIII |

Sources: Compiled from Tables 8 to 13

Table 16 reveals that the above hypothesis is proved for PNB, CAN, BOB and HDFC as their respective average t-Test values i.e. 0.54, 0.99, 1.28 and -1.55 < +/- 2.262. Hence, it is summed up that there is a consistent growth in the all applications of their funds. ICICI, AXIS, CORP and ING-V do not have a consistent growth in their applications of funds; this is also supported by their respective average t-Test values i.e. 2.62, -3.46, -14.05 and -38.40 > +/- 2.262.

PNB, CAN, BOB, and HDFC that are awarded the ranks from I to IV respectively, have perpetual applications of their funds and hence, they bear the adverse impact on their applications of funds during the crisis. ICICI, AXIS, CORP and ING-V that are ranked V to VIII respectively, face the problems, as they do not have a consistent growth in their applications of funds and they will get troubled during the recession.

G) SECTOR WISE FINAL RANK-MATRIX BASED ON THE AVERAGE T-TEST VALUE

The sector wise analysis reveals that the banks have secured the ranks from I to IV for each sector based on their average t-test value of sources and applications of funds is presented in Table 17.

Table 17 reveals the results of sector wise final rank matrix as under:

- Among PSBs, PNB has secured the first rank for both the funds while BOB and CAN have gained the second rank and the third rank for the sources and applications of funds respectively followed by CORP, the fourth rank for both the funds. There is a consistent growth in the sources and the applications of funds of PNB if compared with the other PSBs, while there is less consistent growth in the funds of CORP, which has the highest average t-Test values > - 2.262.
- Among PvSBs, ICICI and HDFC have secured the first rank for sources and applications respectively, AXIS and

ICICI the second ranks, HDFC and AXIS the third ranks and ING-V has got the fourth rank for both the funds. ICICI and HDFC have a consistent growth in their sources and applications of funds respectively; but there is less consistent growth in both the funds of ING-V, which has the highest average t-Test values > - 2.262.

Table 17: Sectorwise Final Rank-Matrix

| Sector | | | Sources of funds | | Sector | | | Applications of funds | |
|--------|---|-------|-----------------------|------------|--------|---|-------|-----------------------|------------|
| | | | Average t-Test values | Final Rank | | | | Average t-Test values | Final Rank |
| PSBs | 1 | PNB | 0.46 | I | PSBs | 1 | PNB | 0.54 | I |
| | 2 | BOB | 0.94 | II | | 2 | CAN | 0.99 | II |
| | 3 | CAN | 1.58 | III | | 3 | BOB | 1.28 | III |
| | 4 | CORP | -15.13 | IV | | 4 | CORP | -14.05 | IV |
| PvSBs | 1 | ICICI | 2.68 | I | PvSBs | 1 | HDFC | -1.55 | I |
| | 2 | AXIS | -4.06 | II | | 2 | ICICI | 2.62 | II |
| | 3 | HDFC | -4.12 | III | | 3 | AXIS | -3.46 | III |
| | 4 | ING-V | -31.57 | IV | | 4 | ING-V | -38.40 | IV |

Sources: Compiled from Tables 15 and 16.

FINDINGS

A) Findings Of Variable Wise Hypotheses Test For Five Sources Of Funds :

i) Equity Share Capital: There is a consistent growth in the equity share capital raised by HDFC, PNB and BOB; but it is less in the case of AXIS, ICICI, CAN, ING-V and CORP.

ii) Reserves: CAN, HDFC, PNB, BOB and ICICI have a consistent growth in their reserves; but this is not the same case with AXIS, CORP and ING-V.

iii) Deposits: There is a consistent growth in the deposits mobilized by HDFC, PNB, BOB, AXIS, CAN and ICICI, but CORP and ING-V have consistent growth in their deposits.

iv) Borrowings: BOB, CAN, PNB and CORP have a consistent growth in their borrowings; but it is not so in respect of ICICI, AXIS, HDFC and ING-V.

v) Other Liabilities and Provisions: There is a consistent growth in the other liabilities owed and provisions made by HDFC, BOB, CAN, and PNB, but there was less consistent growth in respect of ICICI, AXIS, CORP and ING-V.

B) Findings Of Summary Of Hypotheses Tested :

i) With regard to PSBs, there is a consistent growth in the variables of sources of funds i.e. from (i) to (v) in the case of BOB and PNB, (ii) to (v) in respect of CAN and (iv) in the case of CORP.

ii) With regard to PvSBs, there is a consistent growth in five variables of sources of funds i.e. from (i) to (iii) and (v) in respect of HDFC, (ii) and (iii) in the case of ICICI and (iii) in respect of AXIS. But, the hypothesis set for variable i.e. (iv) is not proved for any one of PvSBs.

C) Findings Of Variable wise Hypotheses Test For Six Variables Of Applications Of Funds:

i) Cash and Balances with RBI: There is a consistent growth in the cash and balances with RBI maintained by HDFC, CAN, AXIS, BOB, and ICICI; but there is less consistent growth in the case of CORP and ING-V.

ii) Balances with other Banks and Money at Call: CAN and AXIS have a consistent growth in the balances with other banks and money at call; but it is not so in respect of other banks.

iii) Advances: There is a consistent growth in the advances made by BOB, CAN, PNB, HDFC, and AXIS and ICICI, CORP but ING-V has less consistent growth in its advances.

iv) Investments: HDFC, BOB, CAN and AXIS have a consistent growth in the investments made by them, but this is

not the same case with PNB, ICICI, CORP and ING-V.

v) Net Block: BOB, PNB and CAN have a consistent growth in their net block while HDFC, ICICI, AXIS, CORP have less consistent growth in their net block.

vi) Other Assets: There is a consistent growth in the other assets owned by CAN; but it is less in the case of HDFC, ICICI, PNB, BOB, AXIS, CORP and ING-V.

D) Findings Of Summary Of Hypotheses Tested

i) With regard to PSBs, there is a consistent growth in the variables of applications of funds i.e. from (i) to (vi) in respect of CAN, (i), from (iii) to (v) in the case of BOB and (ii), (iii) and (v) in respect of PNB. CORP has less consistent growth in its applications of funds.

ii) With regard to PvSBs, there is a consistent growth in the variables of applications of funds i.e. from (i) to (iv) in the case of AXIS, (i), (iii) and (iv) in respect of HDFC and (i) in the case of ICICI. But, there is less consistent growth in respect of variables i.e. (v) and (vi) in respect of all PvSBs.

E) Findings Of Funds Wise Hypotheses Test And Ranking Of Banks Based On The Average T-test Value For Five Variables Of Sources Of Funds.

PNB, BOB and CAN that are ranked from I to III respectively have a consistent growth in all sources of funds, while ICICI, AXIS, HDFC, CORP and ING-V that are awarded the ranks from IV to VIII respectively, have less consistent growth in all their sources of funds.

F) Findings Of Funds Wise Hypotheses Test Ranking Based On The Average T-test Value For Six Variables Of Applications Of Funds.

PNB, CAN, BOB and HDFC that have obtained the ranks from I to IV respectively have a consistent growth in their applications of funds; but not the same case with ICICI, AXIS, CORP and ING-V that are awarded the ranks from V to VIII respectively.

G) Findings Of Sector wise Final Rank-matrix Based On The Average T-test Value :

i) Among PSBs, PNB secured the first rank for both the funds, while BOB and CAN have gained the second rank and the third rank respectively for the sources and applications of funds . CORP gained the fourth rank for both the funds. There is a consistent growth in the sources and the applications of funds of PNB, if compared with the other PSBs, while there is a less consistent growth in the funds of CORP.

ii) Among PvSBs, ICICI and HDFC secured the first rank for sources and applications of funds respectively, AXIS and ICICI secured the second rank, HDFC and AXIS the third rank and ING-V hgot the fourth rank for both the funds. ICICI and HDFC have a consistent growth in the sources and applications of funds respectively; but there is less consistent growth in both the funds of ING-V.

SUGGESTIONS

The banking sector pools the savings from the small and scattered depositors, customers and investors and plays a major role in the economic development by lending the funds to other sectors. The growth in the sources and the applications of funds is inevitable for a bank, but they need to grow consistently over a period of time. At the same time, the depositors, the customers and the investors prefer the safety of their money and expect the reasonable returns on their investments. The findings of the study reveal that the majority of the banks under the study have less consistent growth in their sources and applications of funds, which is not a good sign of perpetual sustenance and that adversely affects their smooth functioning. Subsequently, such banks will face problems during the recession as well as in the long run. Of course, growth is inevitable, but consistent. Hence, banks need to focus on the consistent growth in their sources and applications of funds, so that they can cope with the hard-time business situations wherein, they will be in a position either to mobilize the required sources of funds to meet the loan demand or to apply the excess funds lying idle with them. The depositors, the customers and the investors can consider the results of this study for their banking activities as a bank having consistent growth in its sources and applications of funds will have perpetual life, even during the recession period.

CONCLUSION

The sustained growth and performance of a bank reveal that the sources, and the applications of funds have been growing consistently over a period of time. The present study found that the sources and the applications of funds in the case of the majority of banks have been growing less consistently during the study period, which is not a good sign of perpetual sustenance, and they will face problems during the recession. The variable wise analysis shows that there is a consistent growth in the variables of sources of funds, i.e. from (i) to (v) in the case of BOB and from (i) to (iii) and (v) in respect of HDFC. On the other hand, there is a consistent growth in the variables of applications of funds, i.e. from (i) to (vi) in respect of CAN and i.e. from (i) to (iv) in the case of AXIS.

The fund wise analysis reveals that there is a consistent growth in both the funds of PNB and BOB and less consistent growth in the case of other banks. The sector wise analysis exhibits that PNB has secured the first rank for both the funds while ICICI and HDFC have secured the first rank for sources and applications respectively.

The depositors, the customers and the investors can consider the consistent growth in the sources and applications of funds of a bank while dealing with it from the safety point of their deposits and investments. Hence, the banks need to maintain the consistent growth in their sources and applications of funds for the better prosperity in the future. There is an ample scope for the detailed study of the sources and the applications of funds, considering more public sector banks and private sector banks.

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