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4.1 Introduction:

In India private banks are available in plenty and known for offering expeditious service to their customers. Thanks to globalization that prompted many foreign banks to expend their business throughout world and India became the most preferred destination. Today you can find lots of foreign bank that are engaged to serve the customers in the best possible manner and made its stand strong by offering 24 x 7 hour service. Private Banks in India have a great history and started their service way back.

In 1920s, imperial bank of India formed by the great cooperation by Bank of Madras, Bank of Bengal and Bank of Bombay. After that Reserve Bank of India came into existence in 1935 and got authority to look after the other banks. It became centre body and got power to introduce making policy and several new schemes.

After the establishment of Reserve Bank of India, the Imperial Bank of India was blessed with new identity and became popular as State Bank of India.

In 1969 the Government of India offered a new ordinance and approx 14 commercial banks got certification of nationalized banks. Some of them were Central Bank of India, Allahabad Bank, Punjab National Bank and Canara Bank.

In 1994, the Reserve Bank of India opened the door for private banks and handed out the policy to control the private banks.

The policy also included the liberation for Private Banks in terms of their free and independent operation. The first private bank came in India as Trust Bank later it became popular as Oriental Bank of Commerce.

After that Housing Development Finance Corporation limited that got consent from Reserve Bank of India. It became a large private bank and still popular for offering wonderful service.
Today India is a swamped with many private banks such as International Bank, ING Vyasya Bank, Kotak Mahindra Bank, SBI Commercial Bank, Karnataka Bank, Kashmir Bank, ICICI Bank and more. Private Banks in India achieved a milestone for serving people and showed its great commitment. Private Banks in India have earned great response for its skin tight service and also known for bringing revolution for serving millions of customers.

It offers best option for saving and also offers various schemes with maximum return.

It offers its service 24 hours and made the job of fund transfer easier by offering new banking service. Besides, there are lots of ATM machines have been set up by such private banks and made the task of withdrawing liquid money easier.

4.2 ANALYSIS OF THE SELECTED PRIVATE SECTOR BANKS

For the analyzing of private Sector Banks Following Ratios have been computed.

4.2.1 CAPITAL ADEQUACY RATIOS

4.2.1. (1) Return on Capital Employed Ratio

**Meaning:** This ratio establishes a relationship between Earning before Interest & Tax and Total Capital.

**Objective:** The objective of computing this Ratio is to measure the ability of the banks to meet its short-term obligations and to reflect the short-term financial strength/solvency of a Banks. In other words, the objective is to measure the safety margin available for short-term creditors.
**Components:** There are two components of this ratio as follows:

1. Earning before Interest & Tax: Earning before Interest & Tax refer to those assets which are held for their conversion into cash normally within a year.
2. Total Capital: Total Capital refers to those liabilities which are expected to be matured normally within a year.

**Computation:** This Ratio may be expressed as follows:

\[ \text{ROCE} = \frac{\text{Earning before Interest & Tax}}{\text{Total Capital}} \times 100 \]

It indicates rupees of Earning before Interest & Tax available for each rupee of total capital. Higher the Ratio is greater the margin of safety for short-term creditors. However, too high / too low ratio calls for further investigation since the too high ratio may indicate the presence of idle funds with the banks or the absence of investment opportunities with the banks and too low ratio the banks indicate the over trading /under capitalization if the Return on Capital Employed Ratio is high.

The banks is current obligations but if the Earning before Interest & Tax are less than total capital, it means the bank has difficulty in meeting its current obligations. The logic behind this rule is that even if the value of Earning before Interest & Tax becomes half; the bank can still meet its short-term obligations. “Return on Capital Employed Ratio is a tool for measuring the short-term stability or ability of a bank to carry on day-to-day work and meet the short-term commitments earlier.” “The significant of the Return on Capital Employed Ratio is that it is not only a measure of solvency but is an index of working capital available it’s to the enterprises.”
Table No. 4.1
Return on Capital Employed Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)
(In Times)

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005-06</td>
<td>21.0571</td>
<td>16.8102</td>
<td>0.9977</td>
<td>13.6747</td>
<td>11.2612</td>
<td>12.7602</td>
</tr>
<tr>
<td>2009-10</td>
<td>13.7006</td>
<td>15.6721</td>
<td>10.8966</td>
<td>12.3595</td>
<td>7.7976</td>
<td>12.0853</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective private banks.

Chart No. 4.1
Return on Capital Employed Ratio of Selected Private Sector Banks in India

![Chart showing Return on Capital Employed Ratio over years for HDFC Bank, AXIS Bank, ING Bank, KOTAK Bank, and ICICI Bank.]
Table no. 4.1 the Return on Capital Employed Ratio in HDFC Bank registered an increasing trend in first three years of the study. It was 18.8845 times in 2004-05 and 21.4909 times in 2006-07 and then with ups and downs it stopped with 19.5001 times in 2013-14. The highest ratio was 21.4909 times in 2006-07 and the lowest ratio was 13.7006 times in 2009-10. The average of Return on Capital Employed Ratio was 17.4689 times highest among all the Banks.

Return on Capital Employed Ratio in AXIS Bank registered an increasing trend in first three years of the study. It was 13.3704 times in 2004-05 and 19.3706 times in 2006-07. In last two years of study period showed an increasing trend with 15.6441 times in 2012-13 and 16.2679 times 2013-14. The highest ratio was 19.3706 in 2006-07 and the lowest ratio was 12.2115 times in 2007-08. The average of Return on Capital Employed Ratio was 16.3553 times.

Return on Capital Employed Ratio in ING Bank. Registered a fluctuating trend and ranged between -5.2711.71 times in 2004-05 and 13.2480 times in 2012-13 and then with ups and downs it stopped with 9.3030 times in 2013-14. The average of Return on Capital Employed Ratio was 8.4447 times.

Return on Capital Employed Ratio in KOTAK Bank registered a fluctuating trend and ranged between 7.0695 times in 2008-09 and 14.3771 times in 2012-12. It was 11.2150times in 2004-05 with increased reached at 13.6747 times in 2005-06 and then with ups and downs it stopped with 12.2319 times in 2013-14. The average of Return on Capital Employed Ratio was 11.3182 times.

Return on Capital Employed Ratio registered a decreasing trend in first two years of study. It was 15.5442 times in 2004-05 and 11.2612 times in 2005-06. In last six years of study period showed an increasing trend with 7.5339 times in 2008-09 and 13.3999 times 2013-14. The highest ratio was 15.5442 in
2004-05 and the lowest ratio was 7.5339 times in 2008-09. The average of Return on Capital Employed Ratio was 10.9562 times.

In the year 2004-05, Average Return on Capital Employed Ratio was 10.7486 times. In the year 2004-05, the Return on Capital Employed Ratio of HDFC Bank was 18.8842 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of ING Bank was -5.2711 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Return on Capital Employed Ratio was 12.7602 times. In the year 2004-05, the Return on Capital Employed Ratio of HDFC Bank was 21.0571 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of ING Bank was 0.9977 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Return on Capital Employed Ratio was 14.1874 times. In the year 2006-07, the Return on Capital Employed Ratio of HDFC Bank was 21.4909 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of KOTAK Bank was 8.5064 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Return on Capital Employed Ratio was 10.7933 times. In the year 2007-08, the Return on Capital Employed Ratio of HDFC Bank was 13.8310 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of KOTAK Bank was 8.1790 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Return on Capital Employed Ratio was 11.8263 times. In the year 2008-09, the Return on Capital Employed Ratio of AXIS Bank was 17.7719 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of KOTAK Bank was 7.0695 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Return on Capital Employed Ratio was 12.0853 times. In the year 2009-10, the Return on Capital Employed Ratio of AXIS Bank was 15.6721 times which was the highest as compared to other selected Banks and in the
Return on Capital Employed Ratio of ICICI Bank was 7.7976 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Return on Capital Employed Ratio was 13.3545 times. In the year 2010-11, the Return on Capital Employed Ratio of AXIS Bank was 17.8353 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of ICICI Bank was 9.3507 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Return on Capital Employed Ratio was 14.3261 times. In the year 2011-12, the Return on Capital Employed Ratio of AXIS Bank was 17.8353 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of ICICI Bank was 9.3507 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Return on Capital Employed Ratio was 14.8647 times. In the year 2012-13, the Return on Capital Employed Ratio of HDFC Bank was 18.5736 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio ICICI Bank was 12.4808 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Return on Capital Employed Ratio was 14.1406 times. In the year 2013-14, the Return on Capital Employed Ratio of HDFC Bank was 19.5001 times which was the highest as compared to other selected Banks and in the Return on Capital Employed Ratio of ING Bank was 9.3030 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Banks was 12.9087 times.

F - Test (ANOVA):

Hypothesis with respect to the Years:

Null Hypothesis ($H_0$):
There is no significance difference between years in Return on Capital Employed Ratio of selected Private Sector Banks in India.
Alternative Hypothesis (H₁):

There is significance difference between years in Return on Capital Employed Ratio of selected Private Sector Banks in India.

Hypothesis with respect to the selected Private Sector Banks:

Null Hypothesis (H₀):

There is no significance difference between Banks in Return on Capital Employed Ratio of selected Private Sector Banks in India.

Alternative Hypothesis (H₁):

There is significance difference between Banks in Return on Capital Employed Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F-Value</th>
<th>Fcrit(5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>100.9956</td>
<td>9</td>
<td>11.2217</td>
<td>0.8939</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>589.4344</td>
<td>4</td>
<td>147.3586</td>
<td>11.7380</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>451.9431</td>
<td>36</td>
<td>12.5540</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1142.3731</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no. 4.2 indicated that the calculated value between Years of F-test (ANOVA) of Return on Capital Employed Ratio was 0.8339 less than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Alternative hypothesis and accepted the Null hypothesis.
In between Banks the calculated value of F-test (ANOVA) of Return on Capital Employed Ratio was 11.7380 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

**Inference:** It is concluded that there is no significance difference between years in Return on Capital Employed Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks in Return on Capital Employed Ratio of selected Private Sector Banks in India.

**4.2.1. (2) Borrow to Net worth Ratio**

**Meaning:** This ratio establishes a relationship between Borrowing and Net worth.

**Objective:** The objective of computing this ratio is to measure the ability of the bank to meet its short-term obligations as and when due without relying upon the realization of stock.

**Components:** There are two components of this ratio as follows:

1. Borrowing.
2. Net worth includes Reserves and Share Capital.

**Computation:** This ratio may be expressed as follows:

\[
\text{Borrowing Ratio} = \frac{\text{Borrowing}}{\text{Net Worth}} \times 100
\]
It indicates both the quality of net worth and the Borrowing collection efforts of the enterprise. It indicates the speed with which the net worth is converted into cash each year. In general, a high ratio indicates the shorter collection period which implies prompt payments by net worth and a low ratio indicates a longer collection period which implies delayed payments by net worth. However, too high ratio and too low ratio calls further investigation. A too high ratio may be the result of a restrictive Borrowing and collection policy which may curtail the sales and consequently profits. On the other hand, a too low ratio may be the result of liberal and inefficient borrowing and collection policy which may involve the risk of bad net worth and burden of high interest cost involved in maintaining a higher level of net worth. Thus, a bank should neither have a very high nor a very low Borrowing Ratio, but should have a satisfactory level. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratio or with the ratio of similar banks in the same bank or with the bank average.

Table No. 4.3
Borrow to Net worth Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)
(In Times)

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>117.0284</td>
<td>73.5630</td>
<td>114.6963</td>
<td>130.1983</td>
<td>260.0355</td>
<td>139.1043</td>
</tr>
<tr>
<td>2005-06</td>
<td>86.0533</td>
<td>92.9062</td>
<td>121.9484</td>
<td>186.1264</td>
<td>170.7835</td>
<td>131.5636</td>
</tr>
<tr>
<td>2006-07</td>
<td>43.7638</td>
<td>152.7125</td>
<td>84.9924</td>
<td>306.8571</td>
<td>207.8234</td>
<td>159.2298</td>
</tr>
<tr>
<td>2007-08</td>
<td>38.9560</td>
<td>64.1231</td>
<td>87.6359</td>
<td>142.4503</td>
<td>140.2139</td>
<td>94.6758</td>
</tr>
<tr>
<td>2008-09</td>
<td>17.8429</td>
<td>99.7130</td>
<td>135.0225</td>
<td>151.1721</td>
<td>134.9631</td>
<td>107.7427</td>
</tr>
<tr>
<td>2009-10</td>
<td>60.0102</td>
<td>107.0113</td>
<td>165.1622</td>
<td>135.2559</td>
<td>182.6163</td>
<td>130.0112</td>
</tr>
<tr>
<td>2010-11</td>
<td>56.7158</td>
<td>138.2605</td>
<td>158.0203</td>
<td>171.5683</td>
<td>198.8608</td>
<td>144.6851</td>
</tr>
<tr>
<td>2011-12</td>
<td>79.6884</td>
<td>149.3812</td>
<td>143.1354</td>
<td>207.9444</td>
<td>232.0409</td>
<td>162.4381</td>
</tr>
<tr>
<td>2012-13</td>
<td>91.1429</td>
<td>132.7513</td>
<td>140.7292</td>
<td>215.6550</td>
<td>217.8838</td>
<td>159.6324</td>
</tr>
<tr>
<td>2013-14</td>
<td>90.7089</td>
<td>131.5811</td>
<td>136.7275</td>
<td>104.9819</td>
<td>211.3810</td>
<td>135.0761</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>68.1911</td>
<td>114.2003</td>
<td>128.8070</td>
<td>175.2210</td>
<td>195.6602</td>
<td>136.4159</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.
Table no. 4.3 the Borrow to Net worth Ratio in HDFC Bank registered a decreasing trend in first five years of study. It was 117.0284 times in 2004-05 and 17.8429 times in 2008-09. It was 60.0102 times in 2009-10 and then with ups and downs it stopped at 90.7089 times in 2013-14. The highest ratio was 117.0284 times in 2004-05 and the lowest ratio was 17.8429 times in 2008-09. The average of Borrow to Net worth Ratio was 68.1911 times.

Borrow to Net worth Ratio in AXIS Bank registered an increasing trend in first three years of study. It was 73.5630 times in 2004-05 and 152.7125 times 2006-07. In next five years of study period ratio showed an increasing trend with 64.1231 times in 2007-08 and 149.3812 times in 2011-12 then after 0.71 times in 2012-12. The highest ratio was 152.7125 times in 2006-07 and the lowest ratio was 64.1231 times in 2007-08. The average Borrow to Net worth Ratio 114.2003 times.
Borrow to Net worth Ratio in ING Bank registered a fluctuating trend and ranged between 84.9924 times in 2006-07 and 165.1622 times in 2009-10. It was 114.6963 times in 2004-05 with increased reached at 121.9484 times in 2004-05 and then with ups and downs it stooped 136.7275 times in 2013-14. The average of Borrow to Net worth Ratio was 128.8070 times.

Borrow to Net worth Ratio in KOTAK Bank registered an increasing trend in first three years of the study. It was 130.1983 times in 2004-05 and 306.8571 times in 2006-07 and then with ups and downs it stopped with 104.9819 times in 2013-14. The highest ratio was 306.8571 times in 2006-07 and the lowest ratio was 104.9819 times in 2013-14. The average of Borrow to Net worth Ratio was 175.2210 times highest among all the Banks.

Borrow to Net worth Ratio in ICICI Bank registered a fluctuating trend during the study period and it ranged between 134.9631 times in 2008-09 and 260.0355 times in 2004-05. The average Borrow to Net worth Ratio was 195.6602 times.

In the year 2004-05, Average Borrow to Net worth Ratio was 139.1023 times. In the year 2004-05, the Borrow to Net worth Ratio of ICICI Bank was 260.0355 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of AXIS Bank was 73.5630 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Borrow to Net worth Ratio was 131.5636 times. In the year 2005-06, the Borrow to Net worth Ratio of KOTAK Bank was 186.1264 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of HDFC Bank was 86.0533 times which was the lowest as compared to other selected Banks. In the year 2006-07 Borrow to Net worth Ratio was 159.2298 times. In the year 2006-07, the Borrow to Net worth Ratio of KOTAK Bank was 306.8571 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio HDFC Bank was 43.7638 times which was the lowest as compared to other selected Banks. In
the year 2007-08 Average Borrow to Net worth Ratio was 94.6758 times. In the year 2007-08, the Borrow to Net worth Ratio of KOTAK Bank was 142.4503 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of HDFC Bank was 38.9560 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Borrow to Net worth Ratio was 107.7427 times. In the year 2008-09, the Borrow to Net worth Ratio of KOTAK Bank was 151.1721 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of HDFC Bank was 17.8429 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Borrow to Net worth Ratio was 130.0112 times. In the year 2009-10, the Borrow to Net worth Ratio of ICICI Bank was 182.6163 times which was the highest as compared to other selected banks and in the Borrow to Net worth Ratio of HDFC Bank was 60.0102 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Borrow to Net worth Ratio was 144.6851 times. In the year 2010-11, the Borrow to Net worth Ratio of ICICI Bank was 198.8608 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of HDFC Bank was 56.7158 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Borrow to Net worth Ratio was 162.4381 times. In the year 2011-12, the Borrow to Net worth Ratio of ICICI Bank was 232.0409 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of HDFC Bank was 79.6884 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Borrow to Net worth Ratio was 159.6324 times. In the year 2012-13, the Borrow to Net worth Ratio of ICICI Bank was 217.8838 times which was the highest as compared to other selected Banks and in the Borrow to Net worth Ratio of HDFC Bank was 91.1429 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Borrow to Net worth Ratio was 135.0761 times. In the year 2013-14, the Borrow to Net worth Ratio of ICICI Bank was 211.3810 times which was the highest as compared to other selected Banks.
Banks and in the Borrow to Net worth Ratio of HDFC Bank was 90.7089 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks were 136.4159 times.

F - Test (ANOVA):

Hypothesis with respect to the Years:

Null Hypothesis (H\(_0\)):
There is no significance difference between years in Borrow to Net worth Ratio of selected Private Sector Banks in India.

Alternative Hypothesis (H\(_1\)):
There is significance difference between years in Borrow to Net worth Ratio of selected Private Sector Banks in India.

Hypothesis with respect to the selected Private Sector Banks:

Null Hypothesis (H\(_0\)):
There is no significance difference between Banks in Borrow to Net worth Ratio of selected Private Sector Banks in India.

Alternative Hypothesis (H\(_1\)):
There is significance difference between Banks in Borrow to Net worth Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.
Table No. 4.4

F-Test (ANOVA) of Borrow to Net worth Ratio

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F -Value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>22214.9589</td>
<td>9</td>
<td>2468.3288</td>
<td>1.9557</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>102217.8011</td>
<td>4</td>
<td>25554.4503</td>
<td>20.2476</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>45435.5970</td>
<td>36</td>
<td>1262.0999</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>169868.3571</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no. 4.4 in between years the calculated value of F-test (ANOVA) of Borrow to Net worth Ratio was 1.9557 less than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Alternative hypothesis and accepted the Null hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Borrow to Net worth Ratio was 20.2476 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

**Inference:** it is concluded that there is no significance difference between years in Borrow to Net worth Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks in Borrow to Net worth Ratio of selected Private Sector Banks.

➢ **It is concluded that there is significance difference between Banks in Capital Adequacy Ratios of selected Private Sector Banks.**
4.2.2 ASSET QUALITY RATIOS

4.2.2. (1). Rate of return on total assets Ratio

**Meaning:** This Ratio establishes a relationship between Net Profit and Total Assets.

**Objective:** The objective of computing this Ratio is to measure the relative proportion of profit and Assets in financing the assets of a Bank.

**Components:** There are two components of this Ratio as follows:
1. Net Profit.
2. Total Assets which mean equity share capital plus preference share capital plus reserves and surplus minus fictitious assets.

**Computation:** This Ratio may be expressed as follows:

\[
Rate of Return on Total Assets = \frac{Net\ Profit}{Total\ Assets} \times 100
\]

It indicates the margin of safety to net profit. A low Rate of return on total assets Ratio implies the use of more equity than debt which means a larger safety margin for creditors since owner’s equity is treated as a margin of safety by creditors and vice versa. The implications from the point of view of creditors and the bank may be seen as follows:

In case of low Rate of return on total assets ratio is larger margin of safety since owner’s equity is treated as margin of safety by creditors. In case of high Rate of return on total assets ratio is greater the risk to creditors.
Table No. 4.5
Rate of return on total assets Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)

<table>
<thead>
<tr>
<th>Year</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>1.6598</td>
<td>0.8578</td>
<td>-0.2505</td>
<td>1.3034</td>
<td>1.1960</td>
<td>0.9533</td>
</tr>
<tr>
<td>2005-06</td>
<td>1.5182</td>
<td>0.9754</td>
<td>0.0544</td>
<td>1.1620</td>
<td>1.0104</td>
<td>0.9441</td>
</tr>
<tr>
<td>2006-07</td>
<td>1.5154</td>
<td>0.8996</td>
<td>0.4637</td>
<td>0.7099</td>
<td>0.9024</td>
<td>0.8982</td>
</tr>
<tr>
<td>2007-08</td>
<td>1.1940</td>
<td>0.9774</td>
<td>0.6093</td>
<td>1.0382</td>
<td>1.0400</td>
<td>0.9718</td>
</tr>
<tr>
<td>2008-09</td>
<td>1.2249</td>
<td>1.2289</td>
<td>0.5946</td>
<td>0.9616</td>
<td>0.9908</td>
<td>1.0002</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.3255</td>
<td>1.3920</td>
<td>0.7172</td>
<td>1.4988</td>
<td>1.1076</td>
<td>1.2082</td>
</tr>
<tr>
<td>2010-11</td>
<td>1.4157</td>
<td>1.3961</td>
<td>0.8168</td>
<td>1.6090</td>
<td>1.2681</td>
<td>1.3011</td>
</tr>
<tr>
<td>2011-12</td>
<td>1.5291</td>
<td>1.4852</td>
<td>0.9712</td>
<td>1.6524</td>
<td>1.3650</td>
<td>1.4006</td>
</tr>
<tr>
<td>2012-'13</td>
<td>1.6802</td>
<td>1.5209</td>
<td>1.1178</td>
<td>1.6258</td>
<td>1.5510</td>
<td>1.4991</td>
</tr>
<tr>
<td>2013-'14</td>
<td>1.7247</td>
<td>1.6224</td>
<td>1.0889</td>
<td>1.7155</td>
<td>1.6498</td>
<td>1.5603</td>
</tr>
<tr>
<td>Average</td>
<td>1.4787</td>
<td>1.2356</td>
<td>0.6183</td>
<td>1.3277</td>
<td>1.2081</td>
<td>1.1737</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.

Chart No. 4.3
Rate of return on total assets Ratio of Selected Private Sector Banks in India
Table no. 4.5 the Rate of return on total assets Ratio in HDFC Bank registered a decreasing trend in first four years of the study. It was 1.6598 times in 2004-05 and 1.1940 times in 2007-08. In 2008-09 it was 1.2249 times and with increasing trend it stopped with 1.7247 times in 2013-14. The highest ratio was 1.7247 times in 2013-14 and the lowest ratio was 1.1940 times in 2007-08. The average Rate of return on total assets Ratio was 1.4787 times of HDFC Bank was highest among all the Banks.

Rate of return on total assets Ratio in AXIS Bank registered an increasing trend in first two years of study. It was 0.8578 times in 2004-05 and 0.9754 times 2005-06. In next eight years of study period ratio showed an increasing trend with 0.8996 times in 2006-07 and 1.6224 times in 2013-14. The highest ratio was 1.6224 times in 2013-14 and the lowest ratio was 0.08578 times in 2004-05. The average Rate of return on total assets Ratio was 1.2356 times.

Rate of return on total assets Ratio in ING Bank registered a fluctuating trend during the study period. It ranged between -0.2505 times in 2004-05 and 1.1178 times in 2012-13 and then ups and downs it stopped with 1.6224 times in 2013-14. The average Rate of return on total assets Ratio was 0.6183 times.

Rate of return on total assets Ratio in KOTAK Bank registered a decreasing trend in first three years of study. It was 1.3034 times in 2004-05 and 0.7099 times in 2006-07 and then ups and downs it stopped with 1.3277 times 2013-14. The highest ratio was 1.7155 times in 2013-14 and the lowest ratio was 0.7099 times in 2006-07. The average of quick ratio was 1.3277 times.

Rate of return on total assets Ratio in ICICI Bank registered a decreasing trend in first three years of study. It was 1.1960 times in 2004-05 and 0.9024 times 2006-07. In Last six years of study period ratio showed an increasing trend with 0.9908 times in 2008-09 and 1.6498 times in 2013-14. The highest ratio was 1.6498 times in 2013-14 and the lowest ratio was 0.9024 times in 2006-07. The average Rate of return on total assets Ratio was 1.2081 times.
In the year 2004-05, Average Rate of return on total assets Ratio was 1.19 times. In the year 2004-05, the Rate of return on total assets Ratio of HDFC Bank was 1.6598 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was -0.2505 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Rate of return on total assets Ratio was 0.9441 times. In the year 2005-06, the Rate of return on total assets Ratio of HDFC Bank was 1.5182 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.0544 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Rate of return on total assets Ratio was 0.8982 times. In the year 2006-07, the Rate of return on total assets Ratio of HDFC Bank was 1.5154 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.4637 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Rate of return on total assets Ratio was 0.9718 times. In the year 2007-08, the Rate of return on total assets Ratio of HDFC Bank was 1.1940 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.6093 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Rate of return on total assets Ratio was 1.0002 times. In the year 2008-09, the Rate of return on total assets Ratio of AXIS Bank was 1.2289 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.5946 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Rate of return on total assets Ratio was 1.2082 times. In the year 2009-10, the Rate of return on total assets Ratio of KOTAK Bank was 1.4988 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.7172 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Rate of return on total assets Ratio was 1.3011 times. In the year 2010-11, the Rate of return on total
assets Ratio of KOTAK Bank was 1.6090 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.8168 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Rate of return on total assets Ratio was 1.4006 times. In the year 2011-12, the Rate of return on total assets Ratio of KOTAK Bank was 1.6524 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 0.9712 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Rate of return on total assets Ratio was 1.4991 times. In the year 2012-13, the Rate of return on total assets Ratio of HDFC Bank was 1.6802 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 1.1178 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Rate of return on total assets Ratio was 1.5603 times. In the year 2013-14, the Rate of return on total assets Ratio of HDFC Bank was 1.7247 times which was the highest as compared to other selected Banks and in the Rate of return on total assets Ratio of ING Bank was 1.0889 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks were 1.1737 times.

**F - Test (ANOVA):**

**Hypothesis with respect to the Years:**

**Null Hypothesis (H₀):**
There is no significance difference between years in Rate of return on total assets Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between years in Rate of return on total assets Ratio of selected Private Sector Banks in India.
Hypothesis with respect to the selected Private Sector Banks:

Null Hypothesis ($H_0$):
There is no significance difference between Banks in Rate of return on total assets Ratio of selected Private Sector Banks in India.

Alternative Hypothesis ($H_1$):
There is significance difference between Banks in Rate of return on total assets Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F Value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>2.8616</td>
<td>9</td>
<td>0.3180</td>
<td>7.3094</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>4.3019</td>
<td>4</td>
<td>1.0755</td>
<td>24.7239</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>1.5660</td>
<td>36</td>
<td>0.0435</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.7296</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no. 4.6, in between years the calculated value of F-test (ANOVA) of Rate of return on total assets Ratio was 7.3094 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Rate of return on total assets Ratio was 24.2729 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.
**Inference:** It is concluded that there is significance difference between years in Rate of return on total assets Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks Rate of return on total assets Ratio of selected Private Sector Banks.

### 4.2.2. (2) Interest Earned To Total Assets Ratio

**Meaning:** This Ratio establishes a relationship between Interest Earned and total assets.

**Objective:** The objective of computing this Ratio is to determine the efficiency with which the total assets are utilized.

**Components:** There are two components of this Ratio as follows:

1. Interest Earned sales which mean gross sales minus excise duty.
2. Total assets which mean gross fixed assets and current assets.

**Computation:** This Ratio may be expressed as follows:

\[
\text{Interest Earned to Total Assets} = \frac{\text{Interest Earned}}{\text{Total Assets}} \times 100
\]
A high Ratio indicates management’s ability to make a good use of its available tangible assets. At times older assets with lower book value and lower depreciated value may bring out a misleading result of high turnover. On the other hand, lower Interest Earned to Total Assets Ratio, which is undesirable, may be due to on utilization or under utilization of assets. As these two factors, increase not only the cost of financing but also the expense for maintenance and upkeep. So, this ratio ought to be computed with utmost care. As the larger the amount of sales made per rupee of capital invested, the more will be the amount of earning made per rupee invested in the assets of the bank.

It measure as how many rupees of sales are supported by each rupee in total assets. This ratio reflects the efficiency of management in using assets for generating earning. The assets are usually significant for the concern, prospective investors, bankers, creditors, government and public research workers etc. Therefore, Interest Earned to Total Assets Ratio serves some or other purpose of the parties. It serves as means for analyzing and controlling the operations of the enterprise and for planning future actions. To judge whether the ratio is satisfactory or not, it should be compared with its own past Ratios or with the Ratio of similar Banks in the same industry or with industry average.
Table No. 4.7
Interest Earned To Total Assets Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14) (In Times)

<table>
<thead>
<tr>
<th>Year</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-08</td>
<td>7.5952</td>
<td>6.3930</td>
<td>6.6080</td>
<td>8.9550</td>
<td>7.7010</td>
<td>7.4504</td>
</tr>
<tr>
<td>2012-13</td>
<td>8.7589</td>
<td>7.9817</td>
<td>8.8656</td>
<td>9.6094</td>
<td>7.4657</td>
<td>8.5363</td>
</tr>
<tr>
<td>2013-14</td>
<td>8.3677</td>
<td>7.9952</td>
<td>8.6160</td>
<td>10.0098</td>
<td>7.4294</td>
<td>8.4836</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>7.5818</td>
<td>6.7224</td>
<td>7.4018</td>
<td>8.5670</td>
<td>6.9111</td>
<td>7.4368</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.

Chart No. 4.4
Interest Earned To Total Assets Ratio of Selected Private Sector Banks in India
Table no. 4.7 HDFC Bank., the Interest Earned To Total Assets Ratio revels an increasing in first five years of the study period, with the range of 6.0151 times in 2004-05 and 8.9115 times in 2008-09 in next year it indicated a decreasing ratio 7.2701 times and then after 1.71852 times in 2010-11 and 8.3677 times in 2013-14. The average Interest Earned to Total Assets Ratio 7.5818 times

Interest Earned To Total Assets Ratio of AXIS Bank registered an increasing in first five years of the study period. It was 5.098 times in 2004-05 and 7.3351 times in 2008-09, then with ups and downs it stopped at 7.9952 times in 2013-14. The highest ratio was 7.9952 times in 20013-14 and the lowest ratio was 5.0980 times in 2004-05. The average of Interest Earned to Total Assets Ratio was 6.7224 times.

Interest Earned to Total Assets Ratio in ING Bank showed fluctuating trend during the study period. It was increased 6.5000 times in 2004-05 and 7.3397 times in 2005-06 and then after fluctuating trend in study period. The highest ratio was 8.8656 times in 2012-13 and the lowest ratio was in 6.5000 times in 2004-05. The average Interest Earned to Total Assets Ratio of was 7.4018 times.

Interest Earned to Total Assets Ratio in KOTAK Bank registered an increasing trend in first two years of the study. It was 6.4534 times in 2004-05 and 6.8208 times in 2005-06. In last three years of study period an increasing trend with 9.4115 times in 2001-2012 and 10.0098 times in 2013-2014 and then with ups and downs it stopped with 10.0098 times in 2013-14. The highest ratio was 10.6755 times in 2008-09 and the lowest ratio was 6.4534 times in 2004-05. The average of Interest Earned to Total Assets Ratio was 8.5670 times highest among all the Banks.
Interest Earned to Total Assets Ratio in ICICI Bank registered a fluctuating trend during the study period and range between 5.4833 times in 2005-06 and 8.1973 times in 2008-09. It decreasing trend in first two years of the study period it was 5.6125 times in 2004-05 and 5.4833 times in 2005-06 and with ups and downs it reached at 7.4294 times in 2013-14. The average Interest Earned to Total Assets Ratio was 6.9111 times.

In the year 2004-05, Average Interest Earned to Total Assets Ratio was 5.9358 times. In the year 2004-05, the Interest Earned to Total Assets Ratio of ICICI Bank was 5.6125 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of AXIS Bank was 5.0980 times which was the lowest as compared to other selected Banks. In the year 2005-06 Interest Earned to Total Assets Ratio was 6.3082 times. In the year 2005-06, the Interest Earned to Total Assets Ratio of ING Bank was 7.3397 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of ICICI Bank was 5.4833 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Interest Earned to Total Assets Ratio was 6.9110 times. In the year 2006-07, the Interest Earned to Total Assets Ratio of HDFC Bank was 7.5508 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of AXIS Bank was 5.2252 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Interest Earned to Total Assets Ratio was 7.4504 times. In the year 2007-08, the Interest Earned to Total Assets Ratio of KOTAK Bank was 8.9550 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of BBL was AXIS Bank 6.3930 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Interest Earned to Total Assets Ratio was 8.4349 times. In the year 2008-09, the Interest Earned to Total Assets Ratio of KOTAK Bank was 10.6755 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of ING Bank was 7.0552.
times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Interest Earned to Total Assets Ratio was 7.2189 times. In the year 2009-10, the Interest Earned to Total Assets Ratio of KOTAK Bank was 8.6964 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of AXIS Bank was 6.4424 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Interest Earned to Total Assets Ratio was 7.2189 times. In the year 2010-11 Average Interest Earned to Total Assets Ratio was 6.9935 times. In the year 2010-11, the Interest Earned to Total Assets Ratio of KOTAK Bank was 8.2393 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of AXIS Bank was 6.2439 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Interest Earned to Total Assets Ratio was 6.9935 times. In the year 2011-12 Average Interest Earned to Total Assets Ratio was 8.0955 times. In the year 2011-12, the Interest Earned to Total Assets Ratio of KOTAK Bank was 9.4115 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of ICICI Bank was 7.0818 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Interest Earned to Total Assets Ratio was 8.0955 times. In the year 2012-13 Average Interest Earned to Total Assets Ratio was 8.5363 times. In the year 2012-13, the Interest Earned to Total Assets Ratio of KOTAK Bank was 9.0694 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of ICICI Bank was 7.4657 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Interest Earned to Total Assets Ratio was 8.5363 times. In the year 2013-14 Average Interest Earned to Total Assets Ratio was 8.4836 times. In the year 2013-14, the Interest Earned to Total Assets Ratio of KOTAK Bank was 10.0098 times which was the highest as compared to other selected Banks and in the Interest Earned to Total Assets Ratio of ICICI Bank was 7.4294 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks was 7.4368 times.
F - Test (ANOVA):

Hypothesis with respect to the Years:

**Null Hypothesis (H₀):**
There is no significance difference between years in Interest Earned to Total Assets Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between years in Interest Earned to Total Assets Ratio of selected Private Sector Banks in India.

Hypothesis with respect to the selected Private Sector Banks:

**Null Hypothesis (H₀):**
There is no significance difference between Banks in Interest Earned to Total Assets Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between Banks in Interest Earned to Total Assets Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

**Table No. 4.8**
F-Test (ANOVA) of Interest Earned to Total Assets Ratio

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F -value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>38.9113</td>
<td>9</td>
<td>4.3235</td>
<td>13.3746</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>20.8649</td>
<td>4</td>
<td>5.2162</td>
<td>16.1363</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>11.6374</td>
<td>36</td>
<td>0.3233</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>71.4136</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Table no.4.8 in between years the calculated value of F-test (ANOVA) of Interest Earned to Total Assets Ratio was 13.3746 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Interest Earned to Total Assets Ratio was 16.1363 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

**Inference:** It is concluded that there is significance difference between years in Interest Earned to Total Assets Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks in Interest Earned to Total Assets Ratio of selected Private Sector Banks in India.

➢ **It is concluded that there is significance difference between Banks in Asset Quality Ratios of selected Private Sector Banks.**
4.2.3 MANAGEMENT EARNINGS RATIOS

4.2.3. (1) Operating Expense on Total Fund Ratio

Meaning: This Ratio establishes a relationship between Operating Expense and Total Fund.

Objective: The objective of computing this ratio is to determine the efficiency with which the fixed Total Fund is utilized.

Components: There are two components of this ratio as follows:
1. Operating Expense
2. Total Fund which mean equity share capital plus preference share capital plus reserves and surplus minus fictitious assets.

Computation: This ratio may be expressed as follows:

\[
\text{Operating Expense on Total Fund Ratio} = \frac{\text{Operating Expanse}}{\text{Total Fund}}
\]

It indicates the Banks ability to generate Expanse per rupee of investment in total fund. In general, higher the ratio is the more efficient the management and utilization of Total Fund. It may be noted that there is no direct relationship between operating expanse and Total fund since the sales are influenced by other factors as well i.e. product, credit terms, advertisement and publicity etc. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratios or with the ratio of similar banks in the same Bank.
Table No. 4.9
Operating Expense on Total Fund Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)
(In Times)

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>2.7329</td>
<td>1.5930</td>
<td>3.0473</td>
<td>3.9765</td>
<td>2.1726</td>
<td>2.7045</td>
</tr>
<tr>
<td>2005-06</td>
<td>3.3064</td>
<td>2.0254</td>
<td>3.7273</td>
<td>4.4141</td>
<td>2.3321</td>
<td>3.1610</td>
</tr>
<tr>
<td>2006-07</td>
<td>3.3408</td>
<td>2.0585</td>
<td>3.3412</td>
<td>3.9189</td>
<td>2.8881</td>
<td>3.1095</td>
</tr>
<tr>
<td>2007-08</td>
<td>3.3708</td>
<td>2.4054</td>
<td>2.7854</td>
<td>3.9753</td>
<td>3.0415</td>
<td>3.1157</td>
</tr>
<tr>
<td>2008-09</td>
<td>4.5410</td>
<td>2.6060</td>
<td>3.0688</td>
<td>5.2391</td>
<td>3.2171</td>
<td>3.7344</td>
</tr>
<tr>
<td>2009-10</td>
<td>3.8165</td>
<td>2.9033</td>
<td>3.2674</td>
<td>4.1873</td>
<td>2.9382</td>
<td>3.4226</td>
</tr>
<tr>
<td>2010-11</td>
<td>2.8801</td>
<td>2.0381</td>
<td>2.7756</td>
<td>3.2484</td>
<td>1.6957</td>
<td>2.5276</td>
</tr>
<tr>
<td>2011-12</td>
<td>2.8588</td>
<td>2.1687</td>
<td>2.4742</td>
<td>2.9072</td>
<td>1.7213</td>
<td>2.4261</td>
</tr>
<tr>
<td>2012-13</td>
<td>3.0744</td>
<td>2.0973</td>
<td>2.4257</td>
<td>2.7313</td>
<td>1.7859</td>
<td>2.4229</td>
</tr>
<tr>
<td>2013-14</td>
<td>2.6745</td>
<td>2.1385</td>
<td>2.5756</td>
<td>3.0179</td>
<td>1.8412</td>
<td>2.4495</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>3.2596</td>
<td>2.2034</td>
<td>2.9488</td>
<td>3.7616</td>
<td>2.3634</td>
<td>2.9074</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.

Chart No. 4.5
Operating Expense on Total Fund Ratio of Selected Private Sector Banks India
Table no. 4.9 the Operating Expense on Total Fund Ratio in HDFC Bank registered an increasing trend in first five years of study. It was 2.7329 times in 2004-05 and 4.5410 times 2008-09. In next three years of study period ratio showed a decreasing trend with 3.8165 times in 2009-10 and 2.8588 times in 2011-12 then after 3.0744 times in 2012-13. The highest ratio was 4.5410 times in 2008-09 and the lowest ratio was 2.6745 times in 2013-14. The average Operating Expense on Total Fund Ratio 3.2596 times.

Operating Expense on Total Fund Ratio in AXIS Bank an increasing trend first six years of study period it was 1.5930 times in 2004-05 and 2.9033 times in 2009-10. In 2010-11 ratio slight decreased as compared 2009-10. The highest ratio was 2.9033 times in 2009-10 and the lowest ratio was 1.5930 times in 2004-05. The average Operating Expense on Total Fund Ratio was 2.2034 times.

Operating Expense on Total Fund Ratio in ING Bank shows fluctuating trend during the study period. It increasing ratio was 3.0473 times in 2004-05 and 3.7273 times in 2005-06, then after fluctuating trend in study period. The highest ratio was 3.7273 times in 2005-06 and the lowest ratio was 2.4257 times in 2012-13. The average Operating Expense on Total Fund Ratio was 2.9488 times.

Operating Expense on Total Fund Ratio in KOTAK Bank registered a fluctuating trend during the study period. It was 3.9765 times in 2004-05 and 4.4141 times in 2005-06, and then after ups and downs it stopped with 3.0179 times in 2013-14. The highest ratio was 5.2391 times in 2008-09 and the lowest ratio were 2.7313 times in 2012-13. The average Operating Expense on Total Fund Ratio was 3.7616 times highest among all the Banks.

Operating Expense on Total Fund Ratio in ICICI Bank registered an increasing trend in first four five years of study. It was 2.1726 times in 2004-05 and 3.2171 times in 2008-09 and then ups and downs it stopped with 1.8412 times 2013-14. The highest ratio was 3.2171 times in 2008-09 and the
lowest ratio was 1.6957 times in 2010-11. The average of Operating Expense on Total Fund Ratio was 2.3634 times.

In the year 2004-05, Average Operating Expense on Total Fund Ratio was 2.7045 times. In the year 2004-05, the Operating Expense on Total Fund Ratio of KOTAK Bank was 3.9765 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of AXIS Bank was 1.5930 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Operating Expense on Total Fund Ratio was 3.1610 times. In the year 2005-06, the Operating Expense on Total Fund Ratio of KOTAK Bank was 4.4141 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of AXIS Bank was 2.0254 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Operating Expense on Total Fund Ratio was 3.1095 times. In the year 2006-07, the Operating Expense on Total Fund Ratio of KOTAK Bank was 3.9189 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of AXIS Bank was 2.0585 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Operating Expense on Total Fund Ratio was 3.1157 times. In the year 2007-08, the Operating Expense on Total Fund Ratio of KOTAK Bank was 3.9753 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of AXIS Bank was 2.4054 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Operating Expense on Total Fund Ratio was 3.7344 times. In the year 2008-09, the Operating Expense on Total Fund Ratio of KOTAK Bank was 5.2391 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of AXIS Bank was 2.6060 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Operating Expense on Total Fund Ratio was 3.4226 times. In the year 2009-10, the Operating Expense on Total Fund Ratio of KOTAK
Bank was 4.1873 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of AXIS Bank was 2.9033 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Operating Expense on Total Fund Ratio was 2.5276 times. In the year 2010-11, the Operating Expense on Total Fund Ratio of KOTAK Bank was 3.2484 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of ICICI Bank was 1.6957 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Operating Expense on Total Fund Ratio was 2.4261 times. In the year 2011-12, the Operating Expense on Total Fund Ratio of KOTAK Bank was 2.9072 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of ICICI Bank was 1.7213 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Operating Expense on Total Fund Ratio was 2.4229 times. In the year 2012-13, the Operating Expense on Total Fund Ratio of HDFC Bank was 3.0744 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of ICICI Bank was 1.7859 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Operating Expense on Total Fund Ratio was 2.4495 times. In the year 2013-14, the Operating Expense on Total Fund Ratio of KOTAK Bank was 3.0179 times which was the highest as compared to other selected Banks and in the Operating Expense on Total Fund Ratio of ICICI Bank was 1.8412 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks were 2.9074 times.

F - Test (ANOVA):

Hypothesis with respect to the Years:

Null Hypothesis (H₀):
There is no significance difference between years in Operating Expense on Total Fund Ratio of selected Private Sector Banks in India.
Alternative Hypothesis (H₁):
There is significance difference between years in Operating Expense on Total Fund Ratio of selected Private Sector Banks in India.

Hypothesis with respect to the selected Private Sector Banks:

Null Hypothesis (H₀):
There is no significance difference between Banks in Operating Expense on Total Fund Ratio of selected Private Sector Banks in India.

Alternative Hypothesis (H₁):

There is significance difference between Banks in Operating Expense on Total Fund Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

Table No. 4.10

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F-value</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>9.7970</td>
<td>9</td>
<td>1.0886</td>
<td>8.3585</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>16.4699</td>
<td>4</td>
<td>4.1175</td>
<td>31.6159</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>4.6884</td>
<td>36</td>
<td>0.1302</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>30.9553</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no. 4.10 in between years the calculated value of F-test (ANOVA) of Operating Expense on Total Fund Ratio was 8.3585 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Operating Expense on Total Fund Ratio was 31.6159 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.
**Inference:** It is concluded that there is significance difference between years in Operating Expense on Total Fund Ratio of selected Private Sector Banks in India.

It is concluded that there is significant difference between Banks in Operating Expense on Total Fund Ratio of selected Private Sector Banks in India.

**4.2.3. (2) Net Profit on Total Fund Ratio**

**Meaning:** This Ratio establishes a relationship between net profit and total fund.

**Objective:** The objective of computing this Ratio is to determine the efficiency with which the total funds are utilized.

**Components:** There are two components of this ratio as follows:
1. Net profit.
2. Total Fund.

**Computation:** This ratio may be expressed as follows:

\[
\text{Net Profit on Total Fund Ratio} = \frac{\text{Net Profit}}{\text{Total Fund}}
\]

It measure as how many rupees of profit are supported by each rupee in total fund. This Ratio reflects the efficiency of management in using funds for generating earning. The funds are usually significant for the concern, prospective investors, bankers, creditors, government and public research workers etc. Therefore, Net Profit on Total Fund Ratio serves some or other purpose of the parties. It serves as means for analyzing and controlling the operations of the enterprise and for planning future actions. To judge whether the ratio is satisfactory or not, it should be compared with its own past Ratios or with the Ratio of similar Banks in the same bank or with bank average.
Table No. 4.11
Net Profit on Total Fund Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)
(In Times)

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>1.8491</td>
<td>0.9015</td>
<td>-0.2703</td>
<td>1.4050</td>
<td>1.3710</td>
<td>1.0512</td>
</tr>
<tr>
<td>2005-06</td>
<td>1.6997</td>
<td>1.0619</td>
<td>0.0590</td>
<td>1.3079</td>
<td>1.1231</td>
<td>1.0503</td>
</tr>
<tr>
<td>2006-07</td>
<td>1.7829</td>
<td>0.9780</td>
<td>0.5153</td>
<td>0.7959</td>
<td>1.0150</td>
<td>1.0174</td>
</tr>
<tr>
<td>2007-08</td>
<td>1.3621</td>
<td>1.0498</td>
<td>0.6686</td>
<td>1.1693</td>
<td>1.1650</td>
<td>1.0830</td>
</tr>
<tr>
<td>2008-09</td>
<td>1.3983</td>
<td>1.3176</td>
<td>0.6592</td>
<td>1.0847</td>
<td>1.1200</td>
<td>1.1160</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.4609</td>
<td>1.4409</td>
<td>0.7627</td>
<td>1.6233</td>
<td>1.1569</td>
<td>1.2889</td>
</tr>
<tr>
<td>2010-11</td>
<td>1.5809</td>
<td>1.4450</td>
<td>0.8620</td>
<td>1.7110</td>
<td>1.3200</td>
<td>1.3838</td>
</tr>
<tr>
<td>2011-12</td>
<td>1.7196</td>
<td>1.5316</td>
<td>1.0169</td>
<td>1.7192</td>
<td>1.4176</td>
<td>1.4810</td>
</tr>
<tr>
<td>2012-13</td>
<td>1.8405</td>
<td>1.5711</td>
<td>1.1682</td>
<td>1.6819</td>
<td>1.6497</td>
<td>1.5823</td>
</tr>
<tr>
<td>2013-14</td>
<td>1.8830</td>
<td>1.6829</td>
<td>1.1351</td>
<td>1.7834</td>
<td>1.7522</td>
<td>1.6473</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>1.6577</td>
<td>1.2980</td>
<td>0.6577</td>
<td>1.4282</td>
<td>1.3091</td>
<td>1.2701</td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.

Chart No. 4.6
Net Profit on Total Fund Ratio of Selected Private Sector Banks in India
Table no. 4.11 the Net Profit on Total Fund Ratio in HDFC Bank registered a fluctuating trend through the period under the study. The ratio was 1.8491 times in 2004-05 decreasing and reached to 1.6997 times in 2005-06 and then after increasing 1.7829 times in 2006-07. The highest ratio it was 1.8830 times in 2013-14 and the lowest ratio it was 1.3621 times in 2007-08. The average Net Profit on Total Fund Ratio was 1.6577 times of HDFC Bank was highest among all the Banks.

Net Profit on Total Fund Ratio in AXIS Bank showed fluctuating trend during the study period. It was increased 0.9015 times in 2004-05 and 1.0619 times in 2005-06 and then after fluctuating trend in study period. The highest ratio was 1.6829 times in 2013-14 and the lowest ratio was in 0.9015 times in 2004-05. The average of Net Profit on Total Fund Ratio was 1.2980 times.

Net Profit on Total Fund Ratio in ING Bank registered an increasing trend in all years of the study. It was -02703 times in 2004-05 and 1.1351 times in 2013-14 and then with ups and downs it stopped with 1.1351 times in 2013-14. The highest ratio was 1.1682 times in 2012-13 and the lowest ratio was -02703 times in 2004-05. The average of Net Profit on Total Fund Ratio was 0.6577 times.

Net Profit on Total Fund Ratio in KOTAK Bank registered a decreasing trend in first three years of study. It was 1.4050 times in 2004-05 and 0.7959 times in 2006-07. It was 1.1693 times in 2007-08 and then with ups and downs it stopped at 1.7834 times in 2013-14. The highest ratio was 1.7834 times in 20013-14 and the lowest ratio was 0.7959 times in 2006 07. The average of Net Profit on Total Fund Ratio was 1.4282 times.

Net Profit on Total Fund Ratio in ICICI Bank recorded a decreasing trend in first three years of study. It was 1.3710 times in 2004-05 and 1.0150 times in 2006-07. In last six years of study period showed an increasing trend with 1.1200 times in 2008-09 and 1.7522 times 2013-14. The highest ratio was
In the year 2004-05, Average Net Profit on Total Fund Ratio was 1.0512 times. In the year 2004-05, the Net Profit on Total Fund Ratio of HDFC Bank was 1.8491 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was -0.2703 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Net Profit on Total Fund Ratio was 1.0503 times. In the year 2005-06, the Net Profit on Total Fund Ratio of HDFC Bank was 1.6997 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 0.0590 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Net Profit on Total Fund Ratio was 1.0174 times. In the year 2006-07, the Net Profit on Total Fund Ratio of HDFC Bank was 1.7829 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 0.5153 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Net Profit on Total Fund Ratio was 1.0830 times. In the year 2007-08, the Net Profit on Total Fund Ratio of HDFC Bank was 1.3621 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 0.6686 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Net Profit on Total Fund Ratio was 1.1160 times. In the year 2008-09, the Net Profit on Total Fund Ratio of HDFC Bank was 1.3983 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 0.6592 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Net Profit on Total Fund Ratio was 1.2889 times. In the year 2009-10, the Net Profit on Total Fund Ratio of KOTAK Bank was 1.6233 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 0.7627 times which was the
lowest as compared to other selected Banks. In the year 2010-11 Average Net Profit on Total Fund Ratio was 1.3838 times. In the year 2010-11, the Net Profit on Total Fund Ratio of KOTAK Bank was 1.7110 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 0.8620 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Net Profit on Total Fund Ratio was 1.4810 times. In the year 2011-12, the Net Profit on Total Fund Ratio of HDFC Bank was 1.7196 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 1.0169 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Net Profit on Total Fund Ratio was 1.5823 times. In the year 2012-13, the Net Profit on Total Fund Ratio HDFC Bank of was 1.8405 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 1.1682 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Net Profit on Total Fund Ratio was 1.6473 times. In the year 2013-14, the Net Profit on Total Fund Ratio of HDFC Bank was 1.8830 times which was the highest as compared to other selected Banks and in the Net Profit on Total Fund Ratio of ING Bank was 1.1351 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks was 1.2701 times.

**F - Test (ANOVA):**

**Hypothesis with respect to the Years:**

**Null Hypothesis (H₀):**
There is no significance difference between years in Net Profit on Total Fund Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between years in Net Profit on Total Fund Ratio of selected Private Sector Banks in India.
Hypothesis with respect to the selected Private Sector Banks:

Null Hypothesis \((H_0)\):

There is no significance difference between Banks in Net Profit on Total Fund Ratio of selected Private Sector Banks in India.

Alternative Hypothesis \((H_1)\):

There is significance difference between Banks in Net Profit on Total Fund Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

Table No. 4.12

F-Test (ANOVA) of Net Profit on Total Fund Ratio

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f</th>
<th>MS</th>
<th>F -Ratio</th>
<th>F crit (5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>2.5816</td>
<td>9</td>
<td>0.2868</td>
<td>5.4679</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>5.5258</td>
<td>4</td>
<td>1.3814</td>
<td>26.3333</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>1.8886</td>
<td>36</td>
<td>0.0525</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>9.9960</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no.4.12 in between years the calculated value of F-test (ANOVA) of Net Profit on Total Fund Ratio was 5.4679 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Net Profit on Total Fund Ratio was 26.3333 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.
Inference: It is concluded that there is significance difference between years in Net Profit on Total Fund Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks in Net Profit on Total Fund Ratio of selected Private Sector Banks in India.

- It is concluded that there is significance difference between Banks in Management Earnings Ratios of selected Private Sector Banks in India.

4.2.4. EARNING ABILITY

4.2.4. (1) Interest Income to Business Ratio

Meaning: This Ratio establishes a relationship between Interest Earned and Business.

Objective: The objective of computing this ratio is to determine the efficiency with which the Business is utilized.

Components: There are two components of this ratio as follows:
1. Interest Earned
2. Business which mean gross Deposits and Advances.

Computation: This ratio may be expressed as follows:

\[
\text{Interest Income to Business Ratio} = \frac{\text{Interest Earned}}{\text{Business}} \times 100
\]
It indicates both the quality of business and the interest collection efforts of the enterprise. It indicates the speed with which the Business is converted into cash each year. In general, a high ratio indicates the shorter collection period which implies prompt payments by Deposits, and a low ratio indicates a longer collection period which implies delayed payments by Advances. However, too high ratio and too low ratio calls further investigation. A too high ratio may be the result of a restrictive interest and collection policy which may curtail the deposits. On the other hand, a too low ratio may be the result of liberal and inefficient deposits. Thus, a Bank should neither have a very high nor a very low Interest Income to Business Ratio, but should have a satisfactory level. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratio or with the ratio of similar Banks in the same Bank or with the Bank average.

**Table No. 4.13**

**Interest Income to Business Ratio of Selected Private Sector Banks in India**

*(From 2004-05 to 2013-14)*

*(In Times)*

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>4.9959</td>
<td>4.0667</td>
<td>4.5754</td>
<td>5.0537</td>
<td>4.9209</td>
<td>4.7225</td>
</tr>
<tr>
<td>2005-06</td>
<td>4.9256</td>
<td>4.6274</td>
<td>5.1871</td>
<td>5.3740</td>
<td>4.4288</td>
<td>4.9086</td>
</tr>
<tr>
<td>2006-07</td>
<td>5.9778</td>
<td>4.7672</td>
<td>5.1155</td>
<td>6.1763</td>
<td>5.3930</td>
<td>5.4860</td>
</tr>
<tr>
<td>2009-10</td>
<td>5.5153</td>
<td>4.7378</td>
<td>5.0321</td>
<td>7.2895</td>
<td>6.7081</td>
<td>5.8566</td>
</tr>
<tr>
<td>2010-11</td>
<td>5.4069</td>
<td>4.5696</td>
<td>5.0079</td>
<td>7.1509</td>
<td>5.8769</td>
<td>5.6024</td>
</tr>
<tr>
<td><strong>AVRAGE</strong></td>
<td><strong>5.8590</strong></td>
<td><strong>5.0656</strong></td>
<td><strong>5.4518</strong></td>
<td><strong>7.2338</strong></td>
<td><strong>6.1049</strong></td>
<td><strong>5.9430</strong></td>
</tr>
</tbody>
</table>

**Source:** Computed from Published Annual Reports of the respective Private Banks.
Table no. 4.13 the Interest Income to Business Ratio in also witnessed a fluctuating trend during the study period. It ranged between 4.9959 times in 2005-06 and 6.7574 times in 2008-09. It was 4.9959 times in 2004-05 and 4.9256 times in 2005-06 and with ups and downs it reached at 6.1365 times in 2013-14. The average Interest Income to Business Ratio was 5.8590 times.

Interest Income to Business Ratio in AXIS Bank recorded an increasing trend in first three years of study period it was 4.0667 times in 2004-05 and 4.7672 times in 2006-07. In 2007-08 ratios decreased as compared 2006-07. The highest ratio was 6.0462 times in 2013-14 and the lowest ratio was 4.0667 times in 2004-04. The average Interest Income to Business Ratio was 5.0656 times.

Interest Income to Business Ratio in ING Bank recorded a fluctuating trend during the study and the highest ratio was 6.7560 times in 2013-14 and the lowest ratio was 4.5754 times in 2004-05. It was 4.5754 times in 2004-05 with
increased reached at 5.1871 times in 2005-06 and then with ups and downs it stopped with 6.7560 times in 2013-14. The average of Interest Income to Business Ratio was 5.4518 times.

Interest Income to Business Ratio in KOTAK Bank registered an increasing trend in first Five years of study. It was 5.0537 times in 2004-05 and 9.4983 times in 2008-09. In last two years of study period showed a decreasing trend with 8.0831 times in 2012-13 and 7.8208 times 2013-14. The highest ratio was 9.4983 in 2008-09 and the lowest ratio was 5.0537 times in 2004-05. The average of Interest Income to Business Ratio was 7.2338 times highest among all the Banks.

Interest Income to Business Ratio in ICICI Bank recorded a decreasing trend in first two years of study period. It was 4.9209 times in 2004-05 and 4.4288 times in 2005-06 and with ups and downs it reached at 6.5877 times in 2013-14. The highest ratio was 7.1206 times in 2008-09 and the lowest ratio was 4.4288 times in 2005-06. The average Interest Income to Business Ratio was 6.1049 times.

In the year 2004-05, Average Interest Income to Business Ratio was 4.7225 times. In the year 2004-05, the Interest Income to Business Ratio of KOTAK Bank was 0.5.0537 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 4.0667 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Interest Income to Business Ratio was 4.9086 times. In the year 2005-06, the Interest Income to Business Ratio of KOTAK Bank was 5.3740 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of ICICI Bank was 4.4288 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Interest Income to Business Ratio was 5.4860 times. In the year 2006-07, the Interest Income to Business Ratio of KOTAK Bank was 6.1763
times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 4.7672 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Interest Income to Business Ratio was 6.0353 times. In the year 2007-08, the Interest Income to Business Ratio of KOTAK Bank was 7.9290 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 4.7562 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Interest Income to Business Ratio was 6.8404 times. In the year 2008-09, the Interest Income to Business Ratio of KOTAK Bank was 9.4983 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of ING Bank was 5.3791 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Interest Income to Business Ratio was 5.8566 times. In the year 2009-10, the Interest Income to Business Ratio of KOTAK Bank was 7.2895 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 5.5153 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Interest Income to Business Ratio was 5.6024 times. In the year 2010-11, the Interest Income to Business Ratio of KOTAK Bank was 7.1509 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 4.5696 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Interest Income to Business Ratio was 6.4794 times. In the year 2011-12, the Interest Income to Business Ratio of KOTAK Bank was 7.9626 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 5.6416 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Interest Income to Business Ratio was 6.8395 times. In the year 2012-13, the Interest Income to Business Ratio of KOTAK Bank was 8.0831 times which was the highest as compared to other selected Banks and in the Interest
Income to Business Ratio of AXIS Bank was 6.0462 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Interest Income to Business Ratio was 6.6594 times. In the year 2013-14, the Interest Income to Business Ratio of KOTAK Bank was 7.8208 times which was the highest as compared to other selected Banks and in the Interest Income to Business Ratio of AXIS Bank was 5.9962 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks was 5.9430 times.

**F-Test (ANOVA):**

**Hypothesis with respect to the Years:**

**Null Hypothesis (H₀):**
There is no significance difference between years in Interest Income to Business Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between years in Interest Income to Business Ratio of selected Private Sector Banks in India.

**Hypothesis with respect to the selected Private Sector Banks:**

**Null Hypothesis (H₀):**
There is no significance difference between Banks in Interest Income to Business Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between Banks in Interest Income to Business Ratio of selected Electrical Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.
Table No. 4.14
F-Test (ANOVA) of Interest Income to Business Ratio

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f</th>
<th>MS</th>
<th>F-value</th>
<th>F crit(5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>26.5525</td>
<td>9</td>
<td>2.9503</td>
<td>10.4131</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>27.1060</td>
<td>4</td>
<td>6.7765</td>
<td>23.9178</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>10.1997</td>
<td>36</td>
<td>0.2833</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>63.8581</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no.4.14 in between years the calculated value of F-test (ANOVA) of Interest Income to Business Ratio was 10.4131 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Interest Income to Business Ratio was 23.9178 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

**Inference:** It is concluded that there is significance difference between years in Interest Income to Business Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks in Interest Income to Business Ratio of selected Private Sector Banks in India.
4.2. 4. (2) Net profit to Business Ratio

Meaning: This Ratio establishes a relationship between Net Profit and Business.

Objective: The objective of computing this ratio is to determine the efficiency with which the trade Profit is converted into cash.

Components: There are two components of this ratio as follows:

1. Net Profit
2. Business include trade Deposits and Advances

Computation: This ratio may be expressed as follows:

\[
\text{Net Profit To Business Ratio} = \frac{\text{Net Profit}}{\text{Business}} \times 100
\]

It indicates the Banks ability to generate net profit per rupee of Business. Business is a common measure of a Banks advances, efficiency, and overall health. In general, the deposits of short-term funds utilized can be tested with Business to Net Profit. The analysis of this ratio over a period indicates the efficiency of Business in supporting Net Profit. A lower NET PROFIT TO BUSINESS RATIO implies, largely, a more efficient use of funds, whereas, a high NET PROFIT TO BUSINESS RATIO implies inefficiency in the use of short-term financial resources. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratios or with the ratio of similar Banks in the same Bank or with Bank average.
Table No. 4.15

Net profit to business Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)
(In Times)

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>1.3786</td>
<td>0.6843</td>
<td>-0.1764</td>
<td>1.0207</td>
<td>1.0486</td>
<td>0.7912</td>
</tr>
<tr>
<td>2005-06</td>
<td>1.2282</td>
<td>0.7770</td>
<td>0.0384</td>
<td>0.9155</td>
<td>0.8161</td>
<td>0.7551</td>
</tr>
<tr>
<td>2006-07</td>
<td>1.1997</td>
<td>0.6889</td>
<td>0.3246</td>
<td>0.6448</td>
<td>0.7295</td>
<td>0.7175</td>
</tr>
<tr>
<td>2007-08</td>
<td>0.9685</td>
<td>0.7272</td>
<td>0.4409</td>
<td>0.9192</td>
<td>0.8845</td>
<td>0.7881</td>
</tr>
<tr>
<td>2008-09</td>
<td>0.9288</td>
<td>0.9126</td>
<td>0.4534</td>
<td>0.8556</td>
<td>0.8607</td>
<td>0.8022</td>
</tr>
<tr>
<td>2009-10</td>
<td>1.0056</td>
<td>1.0237</td>
<td>0.5459</td>
<td>1.2564</td>
<td>1.0503</td>
<td>0.9764</td>
</tr>
<tr>
<td>2010-11</td>
<td>1.0653</td>
<td>1.0217</td>
<td>0.5923</td>
<td>1.3964</td>
<td>1.1656</td>
<td>1.0483</td>
</tr>
<tr>
<td>2011-12</td>
<td>1.1687</td>
<td>1.0881</td>
<td>0.7139</td>
<td>1.3980</td>
<td>1.2696</td>
<td>1.1277</td>
</tr>
<tr>
<td>2012-13</td>
<td>1.2550</td>
<td>1.1521</td>
<td>0.8385</td>
<td>1.3676</td>
<td>1.4284</td>
<td>1.2083</td>
</tr>
<tr>
<td>2013-14</td>
<td>1.2648</td>
<td>1.2167</td>
<td>0.8538</td>
<td>1.3403</td>
<td>1.4629</td>
<td>1.2277</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>1.1463</td>
<td>0.9292</td>
<td>0.4625</td>
<td>1.1115</td>
<td>1.0716</td>
<td><strong>0.9442</strong></td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.

Chart No. 4.8

Net profit to business ratio of Selected Private Sector Banks in India
Table no. 4.15 Net profit to Business Ratio in HDFC Bank registered a decreasing trend in the first five years of the study period, with the range of 1.3786 times in 2004-05 and 0.9288 times in 2008-09 in next five years it indicated an increasing ratio 1.0056 times in 2009-10 and then after 1.2648 times in 2013-14. The average ratio 1.1463 times of HDFC Bank was highest among all the Banks.

Net profit to Business Ratio in AXIS Bank shows fluctuating trend during the study period. It increasing ratio was 0.6843 times in 2004-05 and 0.7770 times in 2005-06, then after fluctuating trend in study period. The highest ratio was 1.2167 times in 2013-14 and the lowest ratio was 0.6843 times in 2004-05. The average Net profit to Business Ratio was 0.9292 times.

Net profit to Business Ratio in ING Bank recorded a fluctuating trend during the study. It was ranged between -0.1764 times in 2004-05 and 0.8538 times in 2013-14. In 2003-04 and then with ups and downs it stopped with 0.8238 times in 2013-14. The average of Net profit to Business Ratio was 0.4625 times.

Net profit to Business Ratio in KOTAK Bank registered a decreasing trend in first three years of the study period, it range of 1.0207 times in 2004-05 and 0.6448 times in 2006-07. It increased 0.9192 times in 2007-08 and then with ups and downs it stopped with 1.3403 times in 2013-14. The highest ratio was 1.3980 times in 2011-12 and the lowest ratio was 0.7295 times in 2006-07. The average Net profit to Business Ratio was 1.1115 times.

Net profit to Business Ratio in ICICI Bank registered a fluctuating trend during the study period and range between 0.7295 times in 2006-07 and 1.4629 times in 2013-14. It decreasing trend in first three years of the study period it was 1.0486 times in 2004-05 and 0.7295 times in 2006-07 and with ups and downs it reached at 1.4629 times in 2013-14. The average Net profit to business ratio was 1.0716 times.
In the year 2004-05, Average Net profit to Business Ratio was 0.7912 times. In the year 2004-05, the Net profit to business ratio of HDFC Bank was 1.3786 times which was the highest as compared to other selected Banks and in the Net profit to business ratio of ING Bank was -0.1764 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Net profit to business ratio was 0.7551 times. In the year 2005-06, the Net profit to business ratio of HDFC Bank was 1.2282 times which was the highest as compared to other selected Banks and in the Net profit to business ratio of ING Bank was 0.0384 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Net profit to Business Ratio was 0.7175 times. In the year 2006-07, the Net profit to business ratio of HDFC Bank was 1.1997 times which was the highest as compared to other selected Banks and in the Net profit to business ratio of ING Bank was 0.3246 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Net profit to Business Ratio was 0.7881 times. In the year 2007-08, the Net profit to Business Ratio of HDFC Bank was 0.9685 times which was the highest as compared to other selected Banks and in the Net profit to business ratio of ING Bank was 0.4409 times which was the lowest as compared to other selected Banks. In the year 2008-09 Average Net profit to business ratio was 0.8022 times. In the year 2008-09, the Net profit to business ratio Of HDFC Bank was 0.9288 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.4534 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Net profit to Business Ratio was 0.9764 times. In the year 2009-10, the Net profit to business ratio of KOTAK Bank was 1.2564 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.5459 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Net profit to Business Ratio was 1.0483 times. In the year 2010-11, the Net profit to Business Ratio Of KOTAK Bank was 1.3964 times which was the highest as compared to other selected Banks and in the Net profit to
Business Ratio of ING Bank was 0.5923 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Net profit to business ratio was 1.1277 times. In the year 2011-12, the Net profit to business ratio of KOTAK Bank was 1.3980 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.7139 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Net profit to Business Ratio was 1.2083 times. In the year 2012-13, the Net profit to Business Ratio of ICICI Bank was 1.4284 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.8385 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Net profit to Business Ratio was 1.2083 times. In the year 2012-13, the Net profit to Business Ratio of ICICI Bank was 1.4284 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.8385 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Net profit to Business Ratio was 1.2083 times. In the year 2012-13, the Net profit to Business Ratio of ICICI Bank was 1.4284 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.8385 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Net profit to Business Ratio was 1.2277 times. In the year 2013-14, the Net profit to business ratio of ICICI Bank was 1.4629 times which was the highest as compared to other selected Banks and in the Net profit to Business Ratio of ING Bank was 0.8538 times which was the lowest as compared to other selected Banks. The average Ratio of these selected Private Sector Banks was 0.9442 times.

**F - Test (ANOVA):**

**Hypothesis with respect to the Years:**

**Null Hypothesis (H₀):**
There is no significance difference between years in Net profit to Business Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between years in Net profit to Business Ratio of selected Private Sector Banks in India.
Hypothesis with respect to the selected Private Sector Banks:

**Null Hypothesis (H₀):**
There is no significance difference between Banks in Net profit to Business Ratio of selected Private Sector Banks in India.

**Alternative Hypothesis (H₁):**
There is significance difference between Banks in Net profit to Business Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f</th>
<th>MS</th>
<th>F-value</th>
<th>F crit(5%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>1.7540</td>
<td>9</td>
<td>0.1949</td>
<td>6.6969</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>3.1729</td>
<td>4</td>
<td>0.7932</td>
<td>27.2579</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>1.0476</td>
<td>36</td>
<td>0.0291</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>5.9745</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no.4.16 in between years the calculated value of F-test (ANOVA) of Net profit to business ratio was 6.6969 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

In between Banks the calculated value of F-test (ANOVA) of Net profit to business ratio was 27.2579 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.
**Inference:** It is concluded that there is significance difference between years in Net profit to business Ratio of selected Private Sector Banks in India.

It is concluded that there is significance difference between Banks in Net profit to business Ratio of selected Private Sector Banks in India.

➢ *It is concluded that there is significance difference between Banks in Earning Ability Ratios of selected Private Sector Banks in India.*

### 4.2.5 LIQUIDITY RATIO

#### 4.2.5. (1) Quick Ratio

**Meaning:** This Ratio establishes a relationship between quick assets and current liabilities.

**Objective:** The objective of computing this Ratio is to measure the ability of the Bank to meet its short-term obligations as and when due without relying upon the realization of stock.

**Components:** There are two components of this Ratio as follows:

1. **Quick Assets:** Quick assets refer to those assets which can be converted into cash immediately or at a short notice without a loss of value. Quick assets include cash, bills receivable and short-term loan and advances only.

2. **Current liabilities:** Current liabilities refer to those liabilities which are expected to be matured normally within a year. Liquid liability means total of current liabilities minus bank overdraft.
Computation: This Ratio may be expressed as follows:

$$\text{Quick Ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

It indicates rupees of quick assets available for each rupee of current liability. However, this traditional rule should not be used blindly since a Bank having a quick ratio of more than 1, may not be meeting its short-term obligations in time if its current assets consist of doubtful and slow paying debtors while a Bank having a quick ratio of less than 1, may be meeting its short-term obligations in time because of its very efficient inventory management. Thus, an enterprise should have neither a very high nor a very low ratio; it should have a satisfactory ratio. To judge whether the ratio is satisfactory or not, it should be compared with its own past ratio or the ratio of similar enterprise in the same Bank or with the Bank average.

Table No. 4.17

Quick Ratio of Selected Private Sector Banks in India
(From 2004-05 to 2013-14)
(In Times)

<table>
<thead>
<tr>
<th>Years</th>
<th>HDFC BANK</th>
<th>AXIS BANK</th>
<th>ING BANK</th>
<th>KOTAK BANK</th>
<th>ICICI BANK</th>
<th>AVERAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004-05</td>
<td>0.8263</td>
<td>0.6584</td>
<td>0.8204</td>
<td>1.0321</td>
<td>1.0452</td>
<td>0.8765</td>
</tr>
<tr>
<td>2005-06</td>
<td>0.7524</td>
<td>0.6471</td>
<td>0.8515</td>
<td>1.0571</td>
<td>0.9886</td>
<td>0.8593</td>
</tr>
<tr>
<td>2006-07</td>
<td>0.8214</td>
<td>0.7450</td>
<td>0.8800</td>
<td>1.1109</td>
<td>1.0107</td>
<td>0.9136</td>
</tr>
<tr>
<td>2007-08</td>
<td>0.7761</td>
<td>0.8236</td>
<td>0.8700</td>
<td>1.0778</td>
<td>1.0787</td>
<td>0.9252</td>
</tr>
<tr>
<td>2008-09</td>
<td>0.8150</td>
<td>0.8228</td>
<td>0.7647</td>
<td>1.1356</td>
<td>1.1371</td>
<td>0.9350</td>
</tr>
<tr>
<td>2009-10</td>
<td>0.9305</td>
<td>0.8461</td>
<td>0.8326</td>
<td>0.9660</td>
<td>1.0894</td>
<td>0.9329</td>
</tr>
<tr>
<td>2010-11</td>
<td>0.9092</td>
<td>0.8657</td>
<td>0.8652</td>
<td>1.0868</td>
<td>1.1102</td>
<td>0.9674</td>
</tr>
<tr>
<td>2011-12</td>
<td>0.8770</td>
<td>0.8346</td>
<td>0.9078</td>
<td>1.0824</td>
<td>1.1349</td>
<td>0.9673</td>
</tr>
<tr>
<td>2012-13</td>
<td>0.9013</td>
<td>0.8606</td>
<td>0.8372</td>
<td>1.0221</td>
<td>1.1335</td>
<td>0.9509</td>
</tr>
<tr>
<td>2013-14</td>
<td>0.9326</td>
<td>0.9194</td>
<td>1.0106</td>
<td>0.9989</td>
<td>1.1456</td>
<td>1.0014</td>
</tr>
<tr>
<td>AVERAGE</td>
<td>0.8542</td>
<td>0.8023</td>
<td>0.8640</td>
<td>1.0570</td>
<td>1.0874</td>
<td><strong>0.9330</strong></td>
</tr>
</tbody>
</table>

Source: Computed from Published Annual Reports of the respective Private Banks.
Table no. 4.17 the Quick Ratio in HDFC Bank registered a fluctuating trend and ranged between 0.7524 times in 2005-06 and 0.9326 times in 2013-14. It was 0.8263 times in 2004-05 with decreased reached at 0.7524 times in 2005-06 and then with ups and downs it stooped 0.9326 times in 2013-14. The average of quick ratio was 0.8542 times.

Quick Ratio in AXIS Bank recorded a fluctuating trend and ranged between 0.6471 times in 2005-06 and 0.9194 times in 2013-14. It was 0.6584 times in 2004-05 with decreased reached at 06471 times in 2005-06 and then after ups and downs it stopped with 0.9194 times in 2013-14. The average quick ratio was 0.8023 times.

Quick Ratio in ING Bank registered an increasing trend in first three years of the study. It was 0.8204 times in 2004-05 and 0.8800 times in 2006-07. In 2007-08 it was 0.8700 times and with increasing trend it stopped with 1.0106 times in 2013-14. The highest ratio was 1.0106 times in 2013-14 and the
lowest ratio was 0.7647 times in 2008-09. The average quick ratio was 0.8640 times.

Quick Ratio in KOTAK Bank registered an increasing trend in first three years of study. It was 1.0321 times in 2004-05 and 1.1109 times in 2006-07 and then ups and downs it stopped with 0.9989 times 2013-14. The highest ratio was 1.1109 times in 2006-07 and the lowest ratio was 0.9660 times in 2009-10. The average of quick ratio was 1.0570 times.

Quick Ratio in ICICI Bank recorded a fluctuating trend and ranged between 0.9886 times in 2005-06 and 1.1456 times in 2013-14. It was 1.0452 times in 2004-05 with decreased reached at 0.9886 times in 2005-06 and then after ups and downs it stopped with 1.1456 times in 2013-14. The average quick ratio was 1.0874 times highest among all the Banks.

In the year 2004-05, Average Quick Ratio was 0.8765 times. In the year 2004-05, the Quick Ratio of ICICI Bank was 1.0452 times which was the highest as compared to other selected Banks and in the Quick Ratio of AXIS Bank was 0.6584 times which was the lowest as compared to other selected Banks. In the year 2005-06 Average Quick Ratio was 0.8593 times. In the year 2005-06, the Quick Ratio of KOTAK Bank was 1.0571 times which was the highest as compared to other selected Banks and in the Quick Ratio of AXIS Bank was 0.6471 times which was the lowest as compared to other selected Banks. In the year 2006-07 Average Quick Ratio was 0.9136 times. In the year 2005-06, the Quick Ratio of KOTAK Bank was 1.1109 times which was the highest as compared to other selected Banks and in the Quick Ratio of AXIS Bank was 0.7450 times which was the lowest as compared to other selected Banks. In the year 2007-08 Average Quick Ratio was 0.9252 times. In the year 2007-08, the Quick Ratio of ICICI Bank was 1.0787 times which was the highest as compared to other selected Banks and in the Quick Ratio of HDFC Bank was 0.7761 times which was the lowest as compared to other selected Banks. In
the year 2008-09 Average Quick Ratio was 0.9350 times. In the year 2008-09, the Quick Ratio of ICICI Bank was 1.1371 times which was the highest as compared to other selected Banks and in the Quick Ratio of ING Bank was 0.7647 times which was the lowest as compared to other selected Banks. In the year 2009-10 Average Quick Ratio was 0.9329 times. In the year 2009-10, the Quick Ratio of ICICI Bank was 1.0894 times which was the highest as compared to other selected Banks and in the Quick Ratio of ING Bank was 0.8326 times which was the lowest as compared to other selected Banks. In the year 2010-11 Average Quick Ratio was 0.9674 times. In the year 2010-11, the Quick Ratio of ICICI Bank was 1.1102 times which was the highest as compared to other selected Banks and in the Quick Ratio of ING Bank was 0.8652 times which was the lowest as compared to other selected Banks. In the year 2011-12 Average Quick Ratio was 0.9673 times. In the year 2011-12, the Quick Ratio of ICICI Bank was 1.1349 times which was the highest as compared to other selected Banks and in the Quick Ratio of AXIS Bank was 0.8346 times which was the lowest as compared to other selected Banks. In the year 2012-13 Average Quick Ratio was 0.9509 times. In the year 2012-13, the Quick Ratio of ICICI Bank was 1.1335 times which was the highest as compared to other selected Banks and in the Quick Ratio of ING Bank was 0.8372 times which was the lowest as compared to other selected Banks. In the year 2013-14 Average Quick Ratio was 1.0014 times. In the year 2013-14, the Quick Bank and in the Quick Ratio of AXIS Bank was 0.9194 times which was the lowest as compared to other selected Banks. The average ratio of these selected Private Sector Banks was 0.9330 times.

**F - Test (ANOVA):**

**Hypothesis with respect to the Years:**

**Null Hypothesis (H₀):**
There is no significance difference between years in Quick Ratio of selected Private Sector Banks in India.
Alternative Hypothesis ($H_1$):
There is significance difference between years in Quick Ratio of selected Private Sector Banks in India.

Hypothesis with respect to the selected Private Sector Banks:

Null Hypothesis ($H_0$):
There is no significance difference between Banks in Quick Ratio of selected Private Sector Banks in India.

Alternative Hypothesis ($H_1$):
There is significance difference between Banks in Quick Ratio of selected Private Sector Banks in India.

For testing these hypothesis two way ANOVA test has been used as shown in table as below.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>SS</th>
<th>d.f.</th>
<th>MS</th>
<th>F-value</th>
<th>$F_{crit}(5%)$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Years</td>
<td>0.0821</td>
<td>9</td>
<td>0.0091</td>
<td>2.7697</td>
<td>2.1526</td>
</tr>
<tr>
<td>Between Banks</td>
<td>0.6726</td>
<td>4</td>
<td>0.1681</td>
<td>51.0298</td>
<td>2.6335</td>
</tr>
<tr>
<td>Error</td>
<td>0.1186</td>
<td>36</td>
<td>0.0033</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>0.8733</td>
<td>49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table no. 4.18 in between years the calculated value of F-test (ANOVA) of Quick Ratio was 2.7697 greater than the table value of ‘F’ (2.1526) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.
In between Banks the calculated value of F-test (ANOVA) of Quick Ratio was 51.0298 greater than the table value of ‘F’ (2.6335) at 5 percent level of significance. Hence, researcher rejected the Null hypothesis and accepted the Alternative hypothesis.

**Inference:** It is concluded that there is significance difference between years in Quick Ratio of selected Private Sector Banks in India.

It is concluded that there is significant difference between Banks in Quick Ratio of selected Private Sector Banks in India.

➢ **It is concluded that there is significant difference between Banks in Liquidity Ratio of selected Private Sector Banks in India.**

**Conclusion:**

The average Return on Capital Employed Ratio of HDFC Bank was highest among all the Selected Private Sector Banks and ING Bank was lowest among all the Selected Private Sector Banks. The average Borrow to Net worth Ratio of ICICI Bank was highest among all the Selected Private Sector Banks and HDFC Bank was lowest among all the Selected Private Sector Banks. The average Rate of return on total assets Ratio of HDFC Bank was highest among all the Selected Private Sector Banks and ING Bank was lowest among all the Selected Private Sector Banks. The average Interest Earned To Total Assets Ratio of KOTAK Bank was highest among all the Selected Private Sector Banks and AXIS Bank was lowest among all the Selected Private Sector Banks. The average Operating Expense on Total Fund Ratio of KOTAK Bank was highest among all the Selected Private Sector Banks and AXIS Bank was lowest among all the Selected Private Sector Banks. The average Rate Net Profit on Total Fund Ratio of HDFC Bank was highest among all the Selected Private Sector Banks and ING Bank was lowest among all the Selected Private Sector Banks. The average Interest Income to Business Ratio of
KOTAK Bank was highest among all the Selected Private Sector Banks and AXIS Bank was lowest among all the Selected Private Sector Banks. The average Net profit to business Ratio of HDFC Bank was highest among all the Selected Private Sector Banks and ING Bank was lowest among all the Selected Private Sector Banks. The average Quick Ratio of ICICI Bank was highest among all the Selected Private Sector Banks and AXIS Bank was lowest among all the Selected Private Sector Banks.

Analysis of CAMEL MODEL above Nine Ratios under the study by sample of Private Sector Banks and, the results obtained from ‘F’ test (ANOVA) at 5 percent level of significance it is concluded that there is significance difference between years in most of CAMEL MODEL Ratios of selected Private Sector Banks in India.

Analysis of CAMEL MODEL above Nine Ratios under the study by sample Private Sector Banks and, the results obtained from ‘F’ test (ANOVA) at 5 percent level of significance it is concluded that there is significance difference between Banks in most of above CAMEL MODEL Ratios of selected Private Sector Banks in India.
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