



A Study on Management of Working Capital in Banking Sector – Public and Private

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Abstract:

In the present era of globalization, liberalization and privatization, management of working capital is of utmost importance. Shifting from conservative approach to aggressive approach is both the need and necessity of modern business. It is seen that the company reduces its working capital to take a greater risk for bigger profits and losses; conversely, if it is interested in improving its liquidity, it increases the level of its working capital. In order to get an adequate working capital a company should maintain a balance between liquidity and profitability. This paper analyses the working capital management by public and private sector banks for the period of 2008 to 2013. For this purpose the financial statements of the banks for the period have been analysed and financial ratios have been computed. The study tries to highlight the major reasons responsible for distress in short term finance of public and private sector banks. It indicates the importance of working capital management in both public and private sector banks and the reason for short term insolvency using T test. It is concluded that banks in public sector as well as in private sector are following the aggressive approach and concentrating on the profit maximization and also short term solvency has not been neglected.

Introduction:

Every business requires funds for its establishment and to carry out its day-to-day operations. Funds required for meeting the day-to-day operations or short term needs are known as working capital. Working capital is a financial metric that represents the operational liquidity of a business, organization, or any other entity. Along with fixed assets, working capital is considered as part of operating capital. Positive working capital is required to ensure that a firm is able to continue its operations and has sufficient funds to satisfy both maturing short-term debt and upcoming operational expenses. A company can be endowed with assets and profitability but is short on liquidity if its assets cannot be

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converted into cash. In the normal course of business creditors are concerned about receiving payment as soon as possible; so, in order to get security of payment they prefer high levels of working capital. However, management prefers low levels of working capital since working capital, earns an extremely low rate of return and also blocks the valuable finance which may be utilized in some better alternative. Working capital's inefficient management can lead not only to loss of profits but also to the downfall of a business. In today's world of intense global competition, working capital management is receiving increasing attention from managers.

Concept of Working Capital: There are two concepts of working capital.

(a) Gross Working Capital: In a broader sense the term working capital refers to the gross working capital and represents the amount of funds invested in current assets.

(b) Net Working Capital: In a narrow sense, the term working capital refers to the net working capital. It is the excess of current assets over current liabilities. It is the excess of current assets over current liabilities.

Review of Literature:

Sagan in his paper (1955), perhaps the first theoretical paper on the theory of working capital management, emphasized the need for management of working capital accounts and warned that it could vitally affect the health of the company. Realizing the dearth of pertinent literature on working capital management, Walker (1964) made a pioneering effort to develop a theory of working capital management by empirically testing, though partially, three propositions based on risk-return trade-off of working capital management. He studied the effect of the change in the level of working capital on the rate of return in nine industries. Weston and Brigham (1972) further extended the second proposition suggested by Walker by dividing debt into long-term debt and short-term debt. They suggested that short-term debt should be used in place of long-term debt whenever their use would lower the average cost of capital to the firm. They also suggested that a business would hold short-term marketable securities only if there were excess funds after meeting short-term debt obligations. Vanhorne (1969), recognizing working capital management as an area largely lacking in theoretical perspective, attempted to develop a framework in terms of probabilistic cash budget for evaluating decisions concerning the level of liquid assets and the maturity composition of debt involving risk-return trade-off. He proposed calculation of different forecasted liquid asset requirements along with their subjective



probabilities under different possible assumptions. According to Moyer, Mcguigan and Kretlow (1998), the major policy issue encountered in the management of working capital is related to the level of investment and its financing. According to them firms have two goals - liquidity and profitability. Working capital management is important for creating value for share holders according to Shin and Soenen (1998). Management of working capital was found to have significant impact on both profitability and liquidity. The above brief review of studies shows that although a lot of attempts have been made to analyse working capital management, still the study has wide scope for research.

Working capital management is a very important component of corporate finance, since efficient working capital management will lead a firm to react quickly and appropriately to unanticipated changes in market variables, such as interest rates and raw material prices, and gain competitive advantages over its rivals (Appuhami, 2008). Managers spend a considerable amount of time on day-to-day working of capital decisions since current assets are short-lived investments that are continually being converted into other asset types (Rao, 1989). In the case of current liabilities, the firm is responsible for fulfilling obligations mentioned under current liabilities on a timely basis. Liquidity for the ongoing firm is reliant, rather, on the operating cash flows generated by the firm's assets (Soenen, 1993). As a result, working capital management of a company is a very sensitive area in the field of financial management (Joshi, 1995). Measuring firms' liquidity is an empirical question. While the most conventional measures of corporate liquidity are the current ratio and the quick ratio, many (Emery, 1984; Kamath, 1989) have argued that liquidity for the ongoing firm is not really dependent on the liquidation value of its assets, but rather on the operating cash flow generated by those assets.

Methodology

The data relating to the working capital analysis of banks is collected from primary as well as secondary sources. Personal interview method is used for obtaining primary data and the published annual reports and other statements prepared by the banks are used as secondary data. For the purpose of the study the annual reports and other financial and non financial statements of banks for the period from 2008-09 to 2012-13 are considered.

The financial statements of banks are recast and represented in the form of tables and diagrams. To analyse the short term financial position of the banks, Ratios are used, and for testing significance of the difference between the working capital management between public and private sector banks, the T test is applied as statistical tool.



Statement of Problem

The problem selected by the researchers for the research work is titled “A Study on Management of Working Capital in Banking Sector – Public and Private”. There is a need for working capital management to avoid the problems that may occur due to lack of funds. Effective working capital management has a crucial role to play in enhancing the profitability of the firm and it is important to maximize the shareholder's wealth. Hence the study is relevant.

Objectives:

- To analyse the short term financial position of public and private sector banks
- To compare the working capital management between public and private sector banks
- To highlight the major reasons responsible for distress in short term finance of public and private sector banks.

Sample Size:

Five Public Sector Banks were chosen for the study on a random basis they are State Bank of India, Canara Bank, Punjab National bank, Central bank of India and United bank of India.

Private Sector Banks - 5: ICICI, AXIS Bank, South Indian Bank, Kotak Mahindra and HDFC. Random sampling has been used as sampling technique in choosing the banks.

Period of Study:

The analysis is done for a period of five years 2008 to 2013

Hypothesis:

H_0 : There is no significant difference in working capital management of public and private sector banks.

H_a : There is significant difference in working capital management of public and private sector banks.

Limitations of the Study:

- The study is limited to 5 public and 5 private sector banks only.
- The period of study is limited to 5 years only.
- The data related to the study are mostly secondary data, and the accuracy and authenticity of the same depends upon the reliability of sources



Analysis and Interpretations:

| Banks | | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|------------------------------|----------------------------|----------------|----------------|----------------|----------------|----------------|
| SBI | Current Assets | 684640.28 | 763210.75 | 923371.4 | 1017855.07 | 1208328.8 |
| | Current Liabilities | 110697.57 | 80336.7 | 105248.39 | 80915.09 | 95455.07 |
| | Working Capital | 573942.71 | 682874.05 | 818123.01 | 936939.98 | 1112873.68 |
| Canara Bank | Current Assets | 158939.44 | 192204.7 | 249534.43 | 269245.23 | 288347.06 |
| | Current Liabilities | 13488.91 | 6977.3 | 7804.64 | 8891.12 | 11325.45 |
| | Working Capital | 145450.53 | 185227.4 | 241729.79 | 260354.11 | 277021.61 |
| Punjab National Bank | Current Assets | 181136.33 | 216394.84 | 280057.3 | 332395.6 | 345623.17 |
| | Current Liabilities | 18130.13 | 10317.69 | 12328.2 | 13524.18 | 15019.1 |
| | Working Capital | 163006.2 | 206077.2 | 267729.1 | 318871.4 | 330604.1 |
| Central Bank of India | Current Assets | 102316.52 | 129765.47 | 152827.45 | 168082.57 | 192841 |
| | Current Liabilities | 9167.07 | 5545.27 | 6639.93 | 8255.29 | 8472.8 |
| | Working Capital | 93149.45 | 124220.2 | 146187.52 | 159827.27 | 184368.13 |
| United Bank of India | Current Assets | 43492.28 | 50292.49 | 62962.71 | 72146.6 | 80294.66 |
| | Current Liabilities | 3784.3 | 3704.14 | 3866 | 1853.37 | 3137.15 |
| | Working Capital | 39707.98 | 46588.35 | 59096.71 | 70293.23 | 77157.51 |



As stated earlier working capital is the result of surplus of current assets over current liabilities. The current assets in the above public sector banks are showing an increasing trend, but the banks have tried to reduce the current liabilities over the year; but in the year 2012-13 the current liabilities have increased. This shows that the banks have tried to minimise their current liabilities but have failed in the year 2012-13. From the above table we could conclude that the banks are showing an increasing working capital trend throughout the study period.

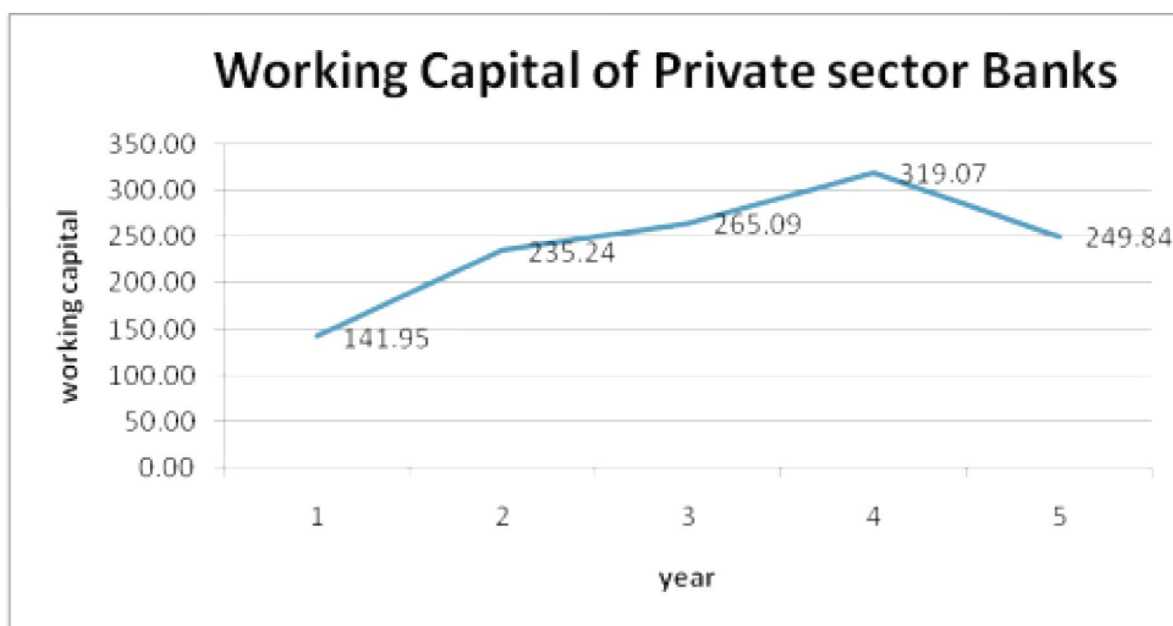
Table No. 1 Changes in Working Capital of Private Sector Banks

| Banks | | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|----------------------|---------------------|-----------|-----------|-----------|-----------|-----------|
| ICICI | Current Assets | 272441.03 | 239294.22 | 266803.45 | 324894.07 | 360754.02 |
| | Current Liabilities | 40934.58 | 12563.22 | 15986.35 | 32998.69 | 32133.6 |
| | Working Capital | 231506.5 | 226731 | 250817.1 | 291895.4 | 328620.4 |
| Axis Bank | Current Assets | 100318.81 | 123450.62 | 168448.61 | 190176.38 | 224467.48 |
| | Current Liabilities | 9527.65 | 5566.52 | 8208.86 | 8643.28 | 10888.11 |
| | Working Capital | 90791.16 | 117884.1 | 160239.8 | 181533.1 | 213579.4 |
| South Indian Bank | Current Assets | 14172 | 18225.89 | 23539.6 | 30592.68 | 36875.45 |
| | Current Liabilities | 730.18 | 706.27 | 961.52 | 1110.93 | 1241.9 |
| | Working Capital | 13441.82 | 17519.62 | 22578.08 | 29481.75 | 35633.55 |
| Kotak Mahindra India | Current Assets | 19388.34 | 24496.00 | 33303.62 | 43649.7 | 54355.84 |
| | Current Liabilities | 3227.01 | 2839.83 | 3032.36 | 2553.67 | 2789.81 |
| | Working Capital | 16161.33 | 21656.17 | 30271.26 | 41096.03 | 51566.03 |
| HDFC | Current Assets | 122746.5 | 161728.14 | 204252.58 | 238079.4 | 286015.22 |
| | Current Liabilities | 22222.94 | 19975.4 | 28992.8 | 37431.8 | 34864.17 |
| | Working Capital | 100523.6 | 141752.7 | 175259.8 | 200647.6 | 251151.1 |

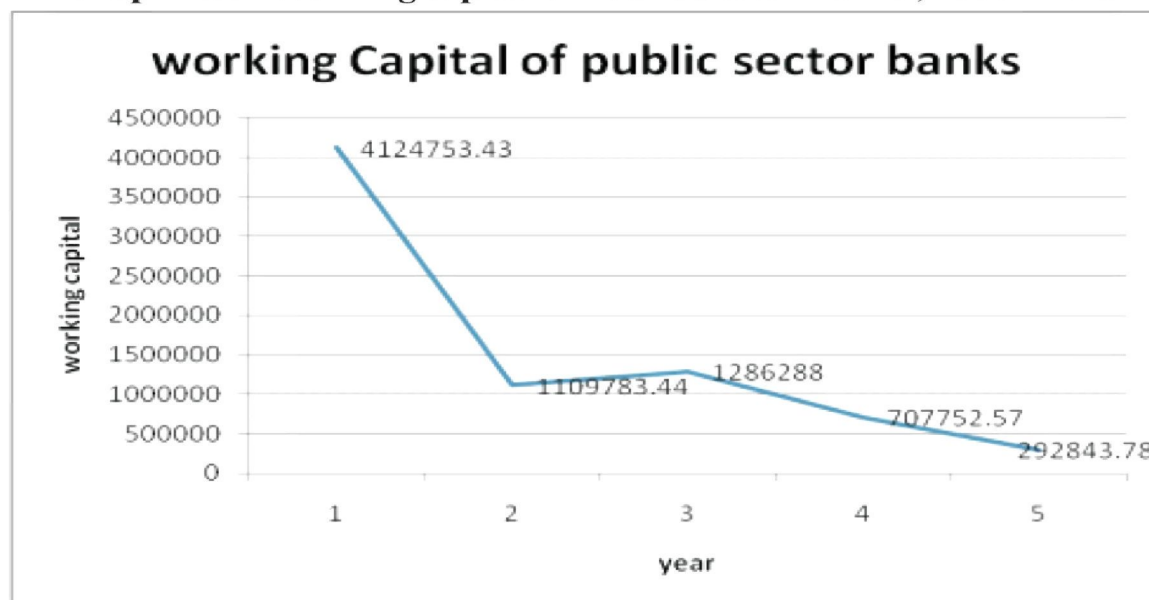


From the table above we can see that the current assets of the private sector banks under study are showing an increasing trend except ICICI bank which shows a declining trend from 2008 to 2011 and after which showing an increasing trend. The current liabilities of the same banks are showing a variable trend. It is showing a decrease in the year 2008 to 2010 and then an increase. Working capital is showing an increasing trend except for ICICI Bank in the year 2008-2009 in which the working capital decreased and then in the following years it is increasing.

Graph No. 1 Working capital of Private Sector Banks



Graph No. 2 Working capital of Public Sector Banks , 2008 – 2013





Ratio Analysis: Ratio Analysis is the most effective tool of analysis. It is a technique which facilitates the inter and intra comparison of data. The ratio analysis is the most powerful tool of financial statement analysis. Ratios show how one number is related to another. The following ratios are calculated under study for working capital analysis.

Current Ratio (CR): Current ratio is an essential ratio for estimating the short term financial solvency of a business. The ratio is calculated by applying the following formula:

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

Current Assets include all such assets which are expected to be liquefied within a period of one year. In other words the assets which are convertible in cash within a period of one year are called current assets such as cash in hand, cash at bank, inventories, receivables, prepaid expenses etc. Similarly the liabilities which have to be paid within one year are considered current liabilities such as creditor, bills payables, outstanding expenses etc. 2 : 1 is considered an ideal current ratio for a business which denotes the availability of 2 ` for every liability of 1 ` .

Table No. 3 Current Ratio of Public Sector Banks

| Bank | 2008 -09 | 2009 -10 | 2010 -11 | 2011 -12 | 2012 -13 |
|------------------------------|----------|----------|----------|----------|----------|
| SBI | 6.18 | 9.50 | 8.77 | 12.58 | 12.66 |
| Canara Bank | 0.03 | 0.02 | 0.01 | 0.02 | 0.02 |
| Punjab National Bank | 9.99 | 20.97 | 22.72 | 24.58 | 23.01 |
| Central Bank of India | 0.76 | 0.03 | 0.04 | 0.03 | 0.03 |
| United Bank of India | 0.69 | 0.02 | 0.03 | 0.02 | 0.03 |

Table No.4 Current Ratio of Private Sector Banks

| Bank | 2008 -09 | 2009 -10 | 2010 -11 | 2011 -12 | 2012 -13 |
|----------------------------|----------|----------|----------|----------|----------|
| ICICI | 0.98 | 1.00 | 0.96 | 0.14 | 0.13 |
| Axis Bank | 0.77 | 0.77 | 0.74 | 0.03 | 0.03 |
| South Indian Bank | 0.72 | 0.02 | 0.02 | 0.02 | 0.02 |
| Kotak Mahindra Bank | 0.94 | 1.00 | 0.95 | 0.05 | 0.09 |
| HDFC | 5.52 | 8.10 | 7.04 | 6.36 | 8.20 |

As depicted from tables no. 3 and 4 the current ratio in SBI and Punjab National Bank were ahead of the ideal ratio throughout the study period. It was 6.18 & 9.99 in the year 2008-09



and in the following years the same showed an increasing trend in Current Ratio which shows that both the banks have maintained a good Current ratio, but the other banks were far from the ideal and they are showing a decreasing trend in Current Ratio. In comparison to public sector, the private sector banks, especially HDFC Bank, have held a better position. The current ratio in HDFC Bank was 5.52 in the year 2008-09, there from the same increased and reached 8.10 in the year 2009-10, but it slightly decreased in the year 2010-11 and increased later in 2012-13, whereas in other Banks it was showing a decreasing trend in Current Ratio. As per the table, apart from SBI, Punjab National Bank and HDFC Bank, no other bank whether private or public has maintained a good current ratio, which generates a fear of short term insolvency in them.

Acid Test Ratio (ATR): Acid Test Ratio is another important ratio for justifying the short term solvency of a business. The ratio is used as a tool for testing very short term solvency. The ratio is calculated by applying the following formula:

$$\text{Acid Test Ratio: } \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

The quick assets consist of those assets which are easily converted into cash within a very short period of time. Normally quick assets are calculated by subtracting stock and prepaid expenses from current assets. In other words

$$\text{Quick Assets} = \text{Current Assets} - (\text{Stock} + \text{Prepaid Expenses})$$

The ideal quick ratio is 1:1 for a business, which denotes the availability of ` 1 of quick assets for every ` 1 current liability.

Table No.5 Acid Test Ratio of Public Sector Banks

| Bank | 2008 -09 | 2009 -10 | 2010 -11 | 2011 -12 | 2012 -13 |
|------------------------------|----------|----------|----------|----------|----------|
| SBI | 5.74 | 9.07 | 8.50 | 12.05 | 12.15 |
| Canara Bank | 29.11 | 30.86 | 26.98 | 11.29 | 9.17 |
| Punjab National Bank | 9.75 | 20.47 | 2.24 | 23.81 | 22.40 |
| Central Bank of India | 22.70 | 20.24 | 22.84 | 23.00 | 11.03 |
| United Bank of India | 23.96 | 29.22 | 14.36 | 12.12 | 10.48 |



Table No. 6 Acid Test Ratio of Private Sector Banks

| Bank | 2008 -09 | 2009 -10 | 2010 -11 | 2011 -12 | 2012 -13 |
|----------------------------|----------|----------|----------|----------|----------|
| ICICI | 10.53 | 9.37 | 15.86 | 14.70 | 5.94 |
| Axis Bank | 20.10 | 21.63 | 19.60 | 19.19 | 9.52 |
| South Indian Bank | 27.57 | 26.58 | 23.82 | 24.96 | 17.99 |
| Kotak Mahindra Bank | 18.95 | 16.85 | 10.86 | 8.46 | 5.91 |
| HDFC | 5.23 | 7.14 | 6.89 | 6.20 | 7.84 |

As per tables no. 5 and 6 the quick ratio in both Public and Private sector banks was in a noticeable position. As per observation the quick ratios were very much more than the ideal ratio in all the ten banks under study which is a clear indication of heavy inefficiency in the management of quick assets; the banks had blocked a huge amount of cash resources in quick assets which can be used in some other fruitful alternatives.

Working Capital Turnover Ratio (WCTR): A measurement comparing the depletion of working capital to the generation of sales over a given period.

This provides some useful information as to how effectively a company is using its working capital to generate sales.

$$\text{Working Capital Turnover Ratio} = \frac{\text{Total Revenue}}{\text{Net Working Capital}}$$

The ratio consists of two components i.e. total revenue and net working capital. The net working capital is calculated by deducting current liabilities from current assets.

The working capital turnover ratio measures the efficiency with which the working capital is being used by a firm. A high ratio indicates efficient utilization of working capital and a low ratio indicates otherwise. But a very high working capital turnover ratio may also mean lack of sufficient working capital, which is not a good situation.

Table No. 7 Working Capital Turnover Ratio of Public Sector Banks

| Bank | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|------------------------------|---------|---------|---------|---------|---------|
| SBI | 0.13 | 0.13 | 0.12 | 0.13 | 0.12 |
| Canara Bank | 0.13 | 0.12 | 0.11 | 0.13 | 0.13 |
| Punjab National Bank | 0.14 | 0.12 | 0.11 | 0.13 | 0.14 |
| Central Bank of India | 0.12 | 0.11 | 0.11 | 0.13 | 0.13 |
| United Bank of India | 0.12 | 0.13 | 0.12 | 0.12 | 0.13 |



Table 8 Working Capital Turnover Ratio of Private Sector Banks

| Bank | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|---------------------|---------|---------|---------|---------|---------|
| ICICI | 0.17 | 0.15 | 0.13 | 0.14 | 0.15 |
| Axis Bank | 0.15 | 0.13 | 0.12 | 0.15 | 0.16 |
| South Indian Bank | 0.14 | 0.12 | 0.12 | 0.13 | 0.13 |
| Kotak Mahindra Bank | 0.20 | 0.17 | 0.16 | 0.17 | 0.18 |
| HDFC | 0.20 | 0.14 | 0.14 | 0.16 | 0.17 |

The working capital turnover ratios calculated in all the selected banks are at a considerable position. As depicted under tables no. 7 and 8 the ratio was positive throughout the study period in both public and private sector banks, which denotes a good sign as far as utilization of working capital is concerned.

Application of Statistical Tool (T Test): Analysis of Variance is the classification and cross classification of statistical data with a view of testing whether the means of specific classification differ significantly or they are homogeneous. In this study sample of ten banks i.e five Public Sector Banks and five Private Sector Banks are selected and the working capital management among them is hypothetically tested by using T Test at 5% level of significance

Samples T Test

| | Paired Differences | | | | | t | df | Sig. (2-tailed) |
|-------------------|--------------------|----------------|-----------------|---|-----------|--------|----|-----------------|
| | Mean | Std. Deviation | Std. Error Mean | 95% Confidence Interval of the Difference | | | | |
| | | | | Lower | Upper | | | |
| Pair 1 | -1.71163E5 | 2.50308E5 | 1.11941E5 | -4.81962E5 | 1.39635E5 | -1.529 | 4 | .201 |

Table No 9 Samples Statistics

| | Mean | N | Std. Deviation | Std. Error Mean |
|----------------|-------------|---|----------------|-----------------|
| Pair 1 Private | 129693.5360 | 5 | 1.02206E5 | 45707.91371 |
| Public | 300856.8488 | 5 | 3.02854E5 | 1.35440E5 |

Table No 10

Samples Correlations

| | N | Correlation | Sig. |
|-------------------------|---|-------------|------|
| Pair 1 Private & Public | 5 | .638 | .247 |



From the above table we could conclude that using T Test at 5% level of significance there is no significant difference in working capital management of public and private sector banks which shows that both public and private sector banks are efficient and hence H_0 is Accepted.

Finding, Suggestions and Conclusion:

Banking sector is one of the most important sectors of any economy. It builds up the creditability and economic strength of not only the country but also of the people who live in it. From the above study it is concluded that the banks in India whether in public or private sector were performing well as far as management of working capital is concerned. The banks under study were facing positive working capital throughout the study period, which generated a probability of short term solvency. The banks have paid maximum attention to the level of working capital and should have created a reserve for the same. It is evident from the above analysis that banks in public sector as well as in private sector are following the aggressive approach and concentrating on the profit maximization and also that short term solvency has not been neglected.

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