

# **Working Capital Analysis Of Manufacturing Company—A Case Study Of Bharat Heavy Electricals Ltd.(B.H.E.L.) -India.**

\* **Dr. S. K. KHATIK (Ph.D., M. Phil, M.Com)**

\*\* **AMIT KUMAR NAG (M.Phil, M.Com.)**

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## **ABSTRACT**

The term working capital refers to current assets, which may be defined as those, which are convertible into cash or equivalents within a period of one year, and those which are required to meet day-to-day operations. The working capital management refers to management of the working capital, or to be more precise the management of current assets. A firms working capital consist of its investments in current assets which includes short term assets such as cash and bank balance, inventories receivables and marketable securities. So the working capital management refers to the management of the level of all these individuals current assets.

Keeping this in view, we have tried to evaluate working capital and working capital management policy of B.H.E.L. during the period from 1993-94 to 2002-03. This research article highlights concept of working capital, working capital policy, components of working capital and factors affecting working capital of B.H.E.L. during the last 10 years and identify which factors are responsible for the improvement of working capital of the company. Working capital position of B.H.E.L. has been analyzed under four categories eg. Analysis of liquidity ratio, analysis of liquidity position, component wise analysis working capital and analysis of liquidity ranking

Finally we find that working capital position of B.H.E.L. is not very satisfactory during the study period, inventory and loans and advances which are one of the major part of gross working capital of the company is not in satisfactory position. The company should have control over these items.

## **Introduction**

“Working capital could be defined as the portion of asset used in current operations. The movement of funds from working capital to income and profits and back to working capital is one of the most important characteristics of business. This cyclical operation is concerned with utilization of funds with the hope that they will return with an additional amount called income. If the operation of a company are to run smoothly a proper relationship between fixed capital and current capital has to be maintained.”<sup>1</sup>

Sufficient liquidity is important and must be achieved and maintained to provide sufficient funds to pay off obligation as they arise or mature. The adequacy of cash and other current assets together with

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\* Reader and Former Head, Department of Commerce, Barkatullah University, BHOPAL, Ex-Chairman, Board of Studies Commerce, Barkatullah University, BHOPAL.

\*\* Asstt. Professor, (Accounts and Finance) Dept. of Commerce and Management. The Bhopal School Of Social Sciences (BSSS), Affiliated to Barkatullah University, BHOPAL (M.P.) INDIA

their efficient handling, virtually determine the survival or demise of the company. A businessman should be able to judge the accurate requirement of working capital and should be quick enough to raise the required funds to finance the working capital needs.

“ Working capital also called net current assets, is the excess of current assets over current liabilities. All organizations have to carry working capital in one form or the other. The efficient management of working capital is important from the point of view of both liquidity and profitability. Poor management of working capital means that funds are unnecessarily tied up in idle assets hence, reducing liquidity and also reducing the ability to invest in productive asset such as plant and machinery, so affecting the profitability.”<sup>2</sup>

The term working capital refers to current assets, which may be defined as:-

- Those which are convertible into cash or equivalent within a period of one year or
- Those, which are required to meet day-to-day operations. The fixed as well as the current assets, both requires investment of funds. So the management of working capital and of fixed asset, apparently seen to involve same type of considerations but it is not so. The management of working capital involves different concepts and methodology than the techniques used in fixed assets management

“ The working capital management refers to management of the working capital or to be more precise the management of current assets. A firm working capital consist of its investments in current assets which include short term assets such as cash and bank balance, inventories, receivables and marketable securities. So the working capital management refers to the management of the level of all those individual current assets. The need of working capital management arises from two considerations first existence of working capital is imperative in any firm. The fixed asset, which usually requires a large funds can be used at an optimum level only if supported by sufficient working capital, and the second, the working involves statements of funds of the firm. If the working capital level is not properly maintained and managed, then it may result in unnecessary blocking of scarce resources of the firm. The insufficient working capital, on the other hand put different hindrances in smooth working of the firm. Therefore, the working capital management needs attention of all the financial managers.”<sup>3</sup>

In this article a modest effort has been made to analyze the working capital management of B.H.E.L. during the period of 1993-94 to 2002-2003.

### **Profile of Bharat Heavy Electricals Ltd.(BHEL)**

Bharat heavy electrical limited, widely known as BHEL is a well-known public sector undertaking recognized across the industrial world. BHEL ranks among the top twelve leading international companies in the power field, and it is the largest engineering and manufacturing enterprises of its kind in India.

The Heavy Electricals limited Bhopal, plant was set up in 1956 but the production actually started from 1960.

Similarly Bharat Heavy Electricals limited was established in November 1964, BHEL has awarded “ ISO

9000 certification". Further, it has also been declared as one of the "Nav ratans" of India by the government of India, on the basis of its overall performance, exports and profits.

This company has acquired and assimilated the latest technology from all over the world through a number of collaborations with international giants from U.K., U.S.S.R., Japan, Switzerland, France, Italy, West Germany and Sweden etc.

B.H.E.L. offers over 180 products and provides system and services to meet the needs of core sectors like power, transmission, transportation, oil and gas, industry, non-conventional energy sources and telecommunication.

A wide spread network comprising 14 manufacturing divisions, 8 service center and 15 regional offices.

### **PRODUCT RANGE OF B.H.E.L.**

1. Thermal Power Plant.
2. Gas Based Power Plant.
3. Hydro Power Plant.
4. D.G Power Plant.
5. Industrial Set.
6. Boilers.
7. Boiler Auxiliaries.
8. Pumps
9. Power Station control Equipment.
10. Switchgear
11. Bus Duets.
12. Transformer.
13. Insulators.
14. Capacitors.
15. Energy Meters.
16. Electrical Machines
17. Compressors.
18. Control Gear.
19. Silicon Rectifier.
20. Thyristor Equipment
21. Power Devices.
22. Transportation Equipment.
23. Oil Field Equipment.
24. Castings And Forgings.
25. Seamless Steel Tubes.
26. Non-Conventional Energy.
27. Tele Communication.
28. Aviation.
29. Systems And Services.
30. Heat Exchanger And Pressure Vessels.

### **OBJECTIVES OF THE STUDY**

Working Capital management is very important in modern business. Financial statement analysis of working capital is also very useful for short-term management of time. The following are the main objective of our study.

1. To access the significance of working capital by selecting few important parameters such as working capital ratio, acid test ratio and current assets to total assets, total assets to sales ratio, debtor to sales and age of debtors etc.
2. To make item wise analysis of the element or components of working capital and to identify the items responsible for changes in working capital.

3. To study liquidity position of the company by taking four measures at a time namely inventory to asset, debtor to current asset, cash & bank to current asset and loans & advances and other asset to current assets.

### **SCOPE & LIMITATION OF THE STUDY**

1. The study is limited to 10 years (1993-94 to 2002-03) performance of the co.
2. The data used in this study have been taken from published annual reports only. As per the requirement some data are grouped and sub-grouped.
3. For making a clear-cut opinion Ratio technique of financial management has been used.

### **DATA AND METHODOLOGY OF THE STUDY**

The data of BHEL for the year (1993-94 to 2002-03) used in this study have been taken from secondary sources e.g. published annual reports of the company. Editing, classification and tabulation of the financial data, which collected from above mentioned sources, have been done as per the requirement of the study. For assessing the performances of the working capital position in this study the technique of ratio analysis have been used. The collected data have been analyzed in four ways:-

1. Analysis of liquidity ratio.
2. Analysis of liquidity position.
3. Item wise analysis of components of gross working capital.
4. Liquidity ranking.

For assessing the behavior of ratio, statistical techniques have also been used e.g. mean, growth rate, standard deviation and coefficient of variation, in this study.

### **FINDINGS :-**

#### **1.CURRENT RATIO:-**

The ratio is calculated by dividing Current assets by current liabilities. Current assets mean all those assets, which are convertible into cash within a year, such as marketable securities, debtors, stock, cash, bank and prepaid expenses. Current liabilities include the obligation maturing within a year like creditors, bills payable, outstanding expenses, bank overdraft and income tax liability. The current ratio is thus a measure of the firms short-term solvency. It indicates the availability of current assets in rupee for every one rupees of current liabilities. A ratio of greater than one means that the firm has more current assets than current claims against it. Ideal of current ratio is 2:1 in normal condition.

As per table-1, current ratio of BHEL was below the ideal standard of 2:1 except for the year 2002-03 when it was 2.271. Current ratio was always in between 1.372 to 2.271 during the study period, which actually shows an increasing trend. During the year 1994-95 the current ratio was 1.372, which shows that the liquidity position of BHEL was not sound during that period. The average current ratio from 1993-1998 was 1.5988, which increased to 1.925 during the period from 1998-2003, which shows that BHEL has tried to improve its liquidity position during the last five years. During the last 4 years the current ratio was

ranging between 1.857 to 2.271 which shows that B.H.E.L. is trying to maintain its current ratio as per the ideal norm. It shows satisfactory working capital position during the study period. The S.D was 0.24 and coefficient of variation was 13.69%.

## **2. LIQUID RATIO or QUICK RATIO :-**

Quick ratio also Known as acid test or liquid ratio is a more vigorous test to liquidity then the current ratio. The term 'liquidity' refers to the ability of firm to pay its short-term obligation as and when they become due. The two determinants of current ratio as a measure of liquidity are current assets and liabilities. Current assets included inventories and prepaid expenses, which are not easily convertible into cash within a short-term period. Quick ratio may be defined as the relationship between quick/current assets and current or liquid liabilities. An asset is said to be liquid if it can be converted into cash within short period without loss of value. In that sense, cash in hand & cash at bank are the most liquid assets, ideal liquid ratio is 1:1.

As per table-1, the acid test ratio was also in satisfactory position. The ratio was more than the ideal position of 1:1 except in the year 1994-95 when it was (0.8735). Highest ratio during the study period was in 2002-2003 when it was (1.695:1) and lowest ratio was (0.8735:1) during the year 1994-95. Average of the acid test ratio between 1993-1998 was (1.03412:1) which increased to (1.37142:1) during the last five year, which shows in last years liquid assets have increased due to decrease of share of stock in the current assets. Overall average during the study period is 1.2027, which is favorable as per the industrial norms. It positively, supported the working capital position. The S.D was 0.2583 and coefficient of variation was 18.15%.

## **3. ABSOLUTE LIQUID RATIO :-**

Although receivables, debtors, and bills receivable are generally more liquid than inventories yet there may be doubts regarding their realization into cash immediately or in time. Hence, some authorities are of opinion that the absolute liquid ratio should also be calculated together with current ratio and acid test ratio so as to exclude over receivable from the current assets and find out the absolute liquid ratio. Absolute liquid assets include cash in hand and cash at bank. The acceptable norm for this ratio is 0.5:1 or 1:2

As per table-1 absolute liquid ratio is highly fluctuated during the study period. The absolute liquid ratio of BHEL was very low as compared to the ideal ratio of 0.5:1 or 1:2, the ratio was much below this standard. The lowest ratio was during the year 2002-03 when it was 0.0036 and it was highest during the year 93-94 & 96-97 when it was 0.0077, which is also very low. The average for the first five years of study was 0.0064 & for next five year of study was 0.0055. The overall average of ten year was 0.0057. All these figures indicate that the cash composition of BHEL was very low. The percentage of cash to current assets was also very low. This shows that the absolute liquidity ratio of BHEL is not at all satisfactory. The S.D. was 0.00157 with coefficient of variation of 27.64%.

## **4. INVENTORY TO SALES RATIO :-**

Inventory to sales ratio establishes relationship between the cost of goods sold to average stock. This ratio measures the velocity of conversion of stock into sales. Usually, a high inventory turnover indicates efficient management of inventory because more frequently the stock are sold, the lesser amount of money is required to finish the inventory. A low inventory turnover ratio indicates an inefficient management

of inventory, over investment in inventories, sluggish business, poor quality of goods and lower profit as compared to total investment. A high inventory turnover may be the result of a very low level of inventory which result in shortage of goods in relation to demand and a position of stock or the turnover may be high due to a conservative method of valuing inventories at lower value or the policy of the business to buy frequently in small lots.

As per table-1, inventory turnover ratio of BHEL is quieting satisfactory. Growth of cost of goods sold from 1993-94 to 2002-03 has been 70.708% as compared to growth of average stock, which was 54.974% (from 1993-94 to 2002-03). Inventory turnover ratio ranges from 2.894 times to 3.945 times. It was lowest in the year 1993-94 when it was 2.894 times and it was highest in the year 1998-99 when it was 3.945 times. The average of inventory turnover ratio from 1993-1998 was 3.4174 times whereas the average from 1999-2003 was 3.357 times which shows that the inventory turnover ratio has decreased during the last five years. The growth percentage of inventory turnover ratio is not that much satisfactory with only 10.159%. The S.D. is 0.35 and the coefficient of variation was 10.35%

### **5. AGE OF INVENTORY :-**

Age of inventory indicates duration of inventory in organization. It shows moving position of inventory during the year. If age of inventory is minimum it means companies activity position is satisfactory, they are able to sell their product within shorter period of time which indicates sound liquidity position of organization. On the other hand, if age of inventory is too high it indicates slow moving of stock due to lower demand of product or excessive production by company, due to stocking policy, which affected directly, liquidity position of company. Inventory is one of the major items in current assets, which shows investment of working capital in stock.

As per table-1 indicates high age of inventory of BHEL, which implies that the company is taking time to clear its stock. The highest age of inventory was during the year 2001-02(133 days) and lowest during the year 1998-99 when it was 93 days, which is still high. The average age of inventory from 1993-98 worked out to be 107.8 days and from 1999-03 it was 110.4 days and the overall average of age of inventory worked out to be 109.1, which is very high, may be because of the nature of business of BHEL. Such a high age of inventory is not a good indicator from working capital point view. The S.D was 16 and coefficient of variation was 14.71%.

### **6. DEBTOR TO SALES RATIO :-**

Debtors to sales ratio indicates the velocity of debt collection of the firm. In simple words, it indicates the number of time the debtors are turned over during a year. Generally, the higher the value of debtor's turnover, the more efficient is the management of debtors/sales or more liquid are the debtors. Similarly, low debtor turnover implies inefficient management of debtors/sales and less liquid debtors. But a precaution is needed while interpreting, a very high ratio may imply a firm's inability due to lack of resources to sale on credit there by losing sales and profits. There is no rule of thumb, which may be used as a norm to interpret the ratio, as it may be different from firm to firm, depending upon the nature of business. This ratio

should be compared with ratio of other firm doing similar business and a trend may also be making a better interpretation of the ratio.

As per table-1 indicates that the debtor to sales ratio of BHEL is very fluctuating. It was highest during the year 98-99 & lowest during 2001-02. The average of first five years of study was 2.3948 while the average for next five years of study was 1.8592. The overall debtor to sales ratio was 2.127. The S.D. was 0.52 with coefficient of variation of 24.36%.

### **7.AVERAGE COLLECTION PERIOD RATIO :-**

The average period ratio represents the average number of days, for which a firm has to wait before there receivable are converted into cash. It measures the quality of debtors. Generally, shorter the average collection period the better is the quality of debtor as a short collection period implies quick payment by debtors. Similarly, a higher collection period implies inefficient collection performance, which in turn adversely affects the liquidity or short-term paying capacity of a firm out of its current liabilities. Moreover, longer the average collection period, longer are the changes of bad debts. But a precaution is needed while interpreting a very short collection period because a very low collection period may imply a firm's conservative policy to sale on credit or its inability to allow credit to its customers and there by losing sales and profit. The average age of debtors is very high in B.H.E.L., which is not at all a good indicator of its performance. The average age of debtors was highest in the year 2001-02 & lowest in the year 1998-99. The mean of average age of debtor of first five year of study was 152.6 days. While that of next five year of study was 215 days. The overall mean of average age of debtor was 183.8 days. The S.D. was 51.86 with coefficient of variation of 28.22%.

### **8.WORKING CAPITAL TURNOVER RATIO :-**

Working capital of a concern is directly related to sales or cost of goods sold. The current assets like debtors, bills receivable, cash, bank, stock changes with increase or decrease in sales. The working capital is taken as:

$$\text{Working Capital} = \text{Current Assets} - \text{Current Liabilities}$$

$$\text{Goods Sold} = \text{Sales} - \text{Gross Profit}$$

*This ratio measures the efficiency with which the working capital is being used by a firm. A higher ratio indicates efficient utilization of working capital and a low ratio indicates otherwise. But a very high working capital turnover ratio is not a good situation for any firm and hence, care must be taken while interpreting the ratio.*

The working capital turnover ratio of B.H.E.L. shows a fluctuating trend in first five years of study while it shows a decreasing trend in the later years. It was highest in the year 94-95 and lowest in 2001-02. The average of first five years was 3.2876 while that of next five years was 2.0932. The overall average is 2.6904.

The S.D. was 0.84 with coefficient of variation of 31.12%.

### **9. CURRENT ASSETS TO TOTAL ASSETS :-**

This ratio expresses the relationship between the amount of current assets and the amount of investment in total assets. It help to assess the importance of current assets of a concern.

Table-1 indicates that overall the current assets are 69.75% of total assets was highest i.e. 72.75% in the year 2000-01 & lowest of 67.73 in the year 94-95. The average current assets to total assets for first five years of study were 69.164% and for next five years was 70.332%. The S.D. is 1.613 and coefficient of variation is 2.31%.

### **10. CURRENT ASSETS TO SALES RATIO :-**

This ratio indicates the efficiency with which working capital turns into sales. A lower ratio implies by and large a more efficient use of funds. A high turnover rate indicates reduced lock-up of fund in working capital. An analysis of current assets to sales ratio over a period of time shows the overall efficiency of working capital management of a firm.

Table-1 indicates a fluctuating trend of current assets to sales ratio. It was highest in the year 2001-02 & lowest in the year 98-99. The average for first five years of study was 74% while for last five years of study was 95.38%. The overall average comes out to be 84.69%. The S.D. was 18.39 and coefficient of ratio was 21.72%.

### **LIQUIDITY POSITION OF BHEL :-**

Liquidity refers to the ability of the concern to meet its current obligation as and when these become due. If current assets can pay of current liabilities then the liquidity position is considered to be satisfactory and if it is not so the position is not satisfactory. The liquidity position of BHEL is presented in Table-4.

It is observed from table-2 that current assets has been increased from Rs. 61292 lakhs to Rs. 128881 lakhs between 1993-94 to 2001-02 and after that current assets have decreased to Rs. 125061 lakhs during the year 2002-03. To make the study in depth various average of current assets has been calculated, average between 1994-98 was Rs. 67862.4 lakhs and average of current assets between 1999-2003 was Rs. 104393.6 lakhs with an overall average of Rs. 86128 lakhs. Current assets registered a growth of 104.04% which shows that current assets increased consistently during the period of study on the other hand standard deviation was Rs. 24031.485 lakhs with coefficient of variation(C.V.) of 27.90%.

### **LIQUID ASSETS :-**

Liquid Assets has also increased from Rs. 38703 lakhs to Rs. 91861 lakhs between 1994-02 after that it decreased to Rs. 91394 lakhs in the year 2002-03. Average of the first five years (1994-98) was Rs. 43932.6 lakhs and average of last five years (1993-03) is Rs. 72964.2 lakhs with an overall average of the study period of Rs.58448.4 lakhs. The growth in the liquid assets was Rs. 140.05% & coefficient of variation

of liquid asset was 33.60%, which shows much fluctuation in liquid assets during the year of study especially because of change in stock and cash and bank balances.

### **CURRENT LIABILITIES :-**

Current Liabilities has increased from Rs. 37448 lakhs to Rs. 45517 lakhs during the period from 1994 to 1996 then afterwards from 1997 to 1999 it showed a decreasing trend when the current liabilities fell from Rs.43419 lakhs to Rs. 40372 lakhs. From the year 2000 it again showed an increasing trend. The average of the first five years (1994-98) was Rs. 42557.2 lakhs and average of last five years (1999-03) is Rs. 52549% lakhs with overall average of Rs. 7553.4 lakhs The growth in the current liability was 47.07%. The standard deviation was 8299.335 lakhs & coefficient of variation was 17.45% which is less than the growth of current assets & Quick Assets, which shows that current liabilities were more consistent during the study period.

### **WORKING CAPITAL :-**

Working Capital of BHEL showed some what a fluctuating trend it was highest during the year 2002-03 when it was Rs. 69985 lakhs & it was Rs.16647 lakhs. From the year 1995-96 onwards working capital had increased from Rs. 25007 lakhs to Rs. 69985 lakhs in the year 2002-03 Working capital registered a growth of 193.51% which shows that working capital has increased more than the current assets & current liabilities. The average of working capital between 1994-98 was Rs. 25305.2 lakhs which increased up to Rs. 51844 lakhs between 1999-03 with an overall average of Rs. 38574.6 lakhs. Coefficient of variation of working capital was 46.36% which is more than coefficient of variation of current assets & current liabilities. Working capital always showed a positive trend except during the year 1994-95 when it was Rs.7197 lakhs.

### **COMPOSITION OF GROSS WORKING CAPITAL :-**

An element wise analysis of gross working capital enables one to examine the element in which the gross working capital funds are locked up and to find out the factor responsible for the significant changes in working capital of different years. In the table-3 the share of each element has been calculated separately for each of the year under study and the average share percentage for all year has also been calculated. Out of the four element of working capital the element namely debtors contributed the highest i.e 58.752% whereas cash contributed the least i.e.0.328%, on the other hand inventory constituted near about 33.086% of gross working capital whereas other current assets to gross working capital constituted 7.81%. During the period of study a remarkable change in share of different element of working capital took place. The inventory to working capital fluctuated between 26.92% to 38.68%. It was highest during the year 1998-99 but then after share of inventory in current assets decreased frequently. A large tie up of funds in inventory adversely affects the profitability of the concern due to owing to carry over costs. Debtor which is another element of working capital increased from 51.73% to 64.27% in between 1998-99 to 2002-03. Share of debtor's increases especially from 1999-00 onwards as compared to total current assets. The share of cash and bank in gross working capital came down from 0.46% to 0.15% between 1993-94 to 2002-03. "In a comfortably finance business, cash and bank will probably run not less than 5% to 10% of the current assets. Since the current liabilities are not expected to exceed half of the assets, the cash percentage should not run under 10 to

20% of the same.” Table-3 shows that the company maintained less cash and bank through out the period of study and this adversely affected the profitability of the company. Share of loan and advances in gross working was an average of 7.84%.

### **LIQUIDITY RANKING :-**

The liquidity position of a firm is largely affected by the composition of working capital in as much as any considerable shifts from the relatively more current assets to the relatively less current or vice-versa, will materially affects a firms ability to pay its current debts prompt. Therefore to determine the liquidity position of the company more precisely a comprehensive test has been made in table-4. A process of ranking has been used to arrive at a more comprehensive measure of liquidity in which four factor – namely, inventory to current assets ratio, cash and bank to current assets and other current assets including loans and advances to current assets ratio – have been combined in a points score. In case of debtors to current assets ratio, cash and bank to current assets ratio and other current assets including loans and advances to current assets ratio, a high value indicates relatively favorable position and ranking has been done in that order. On the other hand a low inventory to current assets ratio shows a more favorable position and hence ranking has been done in that order. Ultimate ranking has been done on the principle that the lower point score, the more favorable is the liquidity position.

Table-4 shows that the year 2002-03 registered the most sound liquidity position and was followed by 2000, 2002, 1998, 1997, 2001, 1996, 1995, 1999, 1994 respectively in that order. The fluctuation in the liquidity position over different years of the period of study may be a point for investigation into the financial efforts of the concern.

### **Findings**

1. The mean percentage of current assets to total assets is 69.75% which is high.
2. Age of inventory is high, the average age of inventory is worked out to be 109.1 days which is high for conversion of finished goods.
3. Debtor collection period is high, the average age of debtor is worked out to be 183.8 days, which is quite high. It implies inefficient collection performance which in turns adversely affects the liquidity or short term paying capacity of B.H.E.L. out of its current liabilities.
4. Absolute liquidity position of B.H.E.L. is also not satisfactory
5. During the study period it is found that current ratio of B.H.E.L. is also not satisfactory because it has been deceasing continuously and which is not sufficient to maintain the liquidity.
6. The composition of cash in hand in total current asset is much lower than 8% which the company needs no maintain.
7. The quantity of stock in total current assent of B.H.E. L is in between 28% - 38% , which is quit low for a manufacturing industry. One of the major reason why stock composition is less, is that company manufacture only on order.

## SUGGESTIONS:

1. For improvement of short term solvency company should concentrate on their collection period, which may vary from 3 months to 6 months but should not exceed 6 month. Longer period of collection will block the money ,which will lead to ineffective short term liquidity position.
2. Proper cash management will enable the company to increase revenue for the organization.
3. Amounts in the reserves and surplus should be utilized for productive purpose which will not only increase the earnings of the company but will also increase the reputation of the company in the market.
4. The company should reduce its age of inventory. Since the age of inventory of B.H.E.L. is high which indicates slow moving of stock so company should try to reduce its conversion period.
5. The company should increase its absolute liquid ratio by increasing its cash composition in total current assets and this is possible by prompt recovery of money from debtor.

## Conclusion

The working capital position of B.H.E.L. may be said to be somewhat satisfactory because its ratio like Liquid ratio, Absolute liquid ratio, Inventory turnover ratio, Debtor turnover ratio and collection period are not satisfactory for the company. BHEL is a Public sector manufacturing industry its objective is not only to earn profit but it is also having social obligations or social accountability in this regard the working capital position of B.H.E.L. must be improved for strengthening its profitability.

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TABLE 1

Selected Liquidity Ratio of BHEL( 1993-94 to 2002-03)

Year	Current ratio	Acid test ratio	Absolute liquid ratio	Inventory to sales ratio(%)	Age of inventory (days)	Debtors to sales ratio (%)	W.C. turnover ratio	Current Assets to total assets (%)	Current Assets to sales ratio(%)	Age of debtor (days)
1993-94	1.636	1.0167	0.0077	2.894	126	2.256	2.768	69.67	81.3	162
1994-95	1.372	0.8735	0.0064	3.355	109	2.413	4.404	67.73	74.0	151
1995-96	1.549	1.0098	0.0065	3.570	102	2.348	3.346	70.12	73.9	155
1996-97	1.700	1.1163	0.0077	3.489	105	2.382	2.865	69.93	73.2	153
1997-98	1.737	1.1543	0.0039	3.779	97	2.575	3.055	68.37	67.6	142
1998-99	1.600	1.1405	0.0073	3.945	93	2.982	3.027	67.99	64.8	122
1999-00	1.857	1.2819	0.0059	3.526	104	2.049	2.495	68.37	80.2	178

2000-01	1.948	1.3867	0.0041	3.384	108	1.402	1.843	70.50	110.8	260
2001-02	1.949	1.389	0.0041	2.742	133	1.289	1.491	72.75	122.4	283
2002-03	2.271	1.659	0.0036	3.188	114	1.574	1.610	72.05	98.7	232
Mean (all)	1.7619	1.2027	0.0057	3.3872	109.1	2.127	2.6904	69.75	84.69	183.8
Mean (93-98)	1.5988	1.0341 2	0.0064	3.4564	107.8	2.3948	3.2876	69.164	74	152.6
Mean (99-03)	1.925	1.3714 2	0.005	3.357	110.4	1.8592	2.0932	70.332	95.38	215
S.D.	0.24	0.2183	0.00157	0.35	16	0.52	0.84	1.613	18.39	51.86
C.V.	13.69%	18.15 %	27.64%	10.35%	14.71 %	24.36 %	31.12 %	2.31%	21.72%	28.22 %

Sources : Compiled from annual reports of BHEL  
(from 1993-94 to 2002-03).

**TABLE 2**

**Liquidity Position of B.H.E.L. (From 1993-94 to 2002-03) (Rs. In lakhs)**

Year	Current Assets Rs.	Liquid Assets Rs.	Current Liabilities Rs.	Working Capital Rs.	Increases/ Decreases In W.C.
1993-94	61292	38073	37448	23844	-
1994-95	61446	39134	44799	16647	(7197)
1995-96	70524	45964	45517	25007	8360
1996-97	73800	48468	43419	30381	5374
1997-98	72250	48024	41603	30647	266
1998-99	75089	46045	40372	34717	4070
1999-00	84600	58357	45545	39055	4338

2000-01	108337	77134	55625	52712	13657
2001-02	128881	91861	66130	62751	10039
2002-03	125061	91394	55076	69985	7234
Mean (ALL)	86128	58448.4	47553.4	38574.6	
Mean (1994-98)	67862.4	43932.6	42557.2	25305.2	
Mean (1999-03)	104393.6	72964.2	52549.6	51844	
Growth Rate	104.04%	140.05%	47.07%	193.51%	
S.D.	24031.485	19639.638	8299.335	16727.108	
C.V.	27.90%	33.60%	17.45%	43.36%	

**Sources :** Compiled from annual reports of BHEL  
(from 1993-94 to 2002-03).

**TABLE 3**  
**Component of Working Capital with respective percentage of B.H.E.L.**

Year	Inventory to Gross Working Capital(%)	Debtor to Gross Working Capital(%)	Cash & Bank to Gross Working Capital(%)	Other Current Asset to Gross Working Capital(%)
1993-94	37.88	54.50	0.46	7.14
1994-95	36.31	55.98	0.46	7.23
1995-96	34.82	57.58	0.42	7.17
1996-97	34.32	57.31	0.45	7.91
1997-98	33.53	57.47	0.22	8.77
1998-99	38.68	51.73	0.39	9.19
1999-00	30.88	60.83	0.32	7.85
2000-01	28.80	64.36	0.21	6.62
2001-02	28.72	63.39	0.20	7.67

2002-03	26.92	64.37	0.15	8.55
Mean(all)	33.086	58.752	0.328	7.81
Mean (1994-98)	35.372	56.568	0.402	7.644
Mean (1999-03)	30.8	60.936	0.254	7.976

Sources : Compiled from annual reports of BHEL (from 1993-94 to 2002-03)

### Statement of Liquidity Ranking of B.H.E.L.

Year	Inventory To Current Assets	Debtor To Current Assets	Cash & Bank to Current Assets	Loan & Adv. to Current Assets	Liquidity Rank				Total Rank	Ultimate Rank
					1	2	3	4		
	1	2	3	4	1	2	3	4		
1993-94	37.38	54.50	0.46	7.14	9	9	1	9	28	10
1994-95	36.31	55.98	0.46	7.23	8	8	2	7	25	8
1995-96	34.82	57.58	0.42	7.17	7	5	4	8	24	7
1996-97	34.32	57.31	0.45	7.91	6	7	3	4	20	5
1997-98	33.53	57.47	0.22	8.77	5	6	7	2	20	4
1998-99	38.68	51.73	0.39	9.19	10	10	5	1	26	9
1999-00	30.88	60.83	0.32	7.85	4	4	6	5	19	2
2001-02	28.80	64.36	0.21	6.62	3	2	8	1 0	23	6
2001-02	28.72	63.39	0.20	7.67	2	3	9	6	20	3
2002-03	26.92	64.37	0.15	8.55	1	1	10	3	15	1

SOURCE : Compiled from annual reports of BHEL (From 1993-94 & 2002-03)