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An exposure on working capital management is deliberated as the management of current assets and the management of current liabilities. The efficient management of working capital is important from the point of view of both liquidity and profitability. This article contains a detailed description of working capital assessment of a fertilizer company and develops a conceptual understanding of liquidity, current assets management and the structure of liabilities. The efficiency and effectiveness in the process of working capital management can be judged with the assistance of certain accounting ratios. This article vividly decodes the relationship between various components of working capital and reflects macro level changes in the management of working capital.

Working capital Management in Nat Fertilizer Ltd. : A Case Study

PROF P.C. NARWARE*

Working Capital is the life- blood and controlling ner of every business. Blood gives life and strength to th body, and working capital imparts life and strength and solvency — to the business organization. The im of working capital to a manufacturing unit is such failure or success of an enterprise is determine availability of sufficient working capital.

Both excessive as well as inadequate working capital are dangerous from the companies' point of view. H out of the two, it is the inadequacy of working capit is more hazardous. If the working capital level is not maintained and managed, then it may result in unn blocking of scarce resources of the firm. The ins working capital puts different hindrances in smooth of the firm. Therefore the working capital manageme attention of all the financial managers.

In the present competitive environment where sales a pressure, a firm has to increase the range of produc

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flexibility in manufacturing and offer better terms of credit. All these require additional investments in working capital. Hence, working capital management, which received less attention so far, has been given more thought by top management of several companies particularly after liberalization.

In this context, the present study is primarily aimed to analyze the trends in working capital management of National Fertilizer Ltd., during the period 1991 to 2000.

ABOUT THE COMPANY

Of the different companies operating in the field of fertilizer industry of India, National Fertilizer Ltd., is one of the largest companies producing and marketing fertilizer products. Kisan Khad and Kisan Urea are NFL's two main brand products, widely popular in most states. NFL also produces and markets various industrial products like liquid Oxygen, liquid Nitrogen, Nitric Acid and Ammonium Nitrate. The bio-fertilizer products of the company are being marketed in Madhya Pradesh through state agencies. The company's annual sales turn over is of the order of Rs 1400 crores, net worth of the company stands at Rs 1326.17 crores with a paid up capital of Rs 490.58 crore. NFL has four fully owned units, namely, Nangal unit, Panipat unit, Bhatinda unit and Vijaypur units.

OBJECTIVE OF THE STUDY

The primary objective of the study is to examine how NFL has performed in the management of working capital in the competitive environment since 1991. This is examined by the setting out the following objectives.

- To find out the importance of factors affecting working capital requirements
- To make an itemize analysis of the elements / components of working capital to identify the items responsible for changes in working capital
- To study the liquidity position of the company by taking four measures at a time, namely inventory to current assets, debtors to current assets, cash & bank to current assets and other current assets including loans and advances to current assets
- To analyze the trends in the investment in working capital and its components
- To suggest ways to increase the efficiency of the working capital management.

DATA AND METHODOLOGY OF THE STUDY

The data of NFL for the years 1991 to 2000 used in this study have been taken from mainly secondary sources. The necessary secondary data have been collected from the financial statements published in the Annual Reports of the Company. The various issues of the reports contain the audited balance sheets and profit and loss account of the Company. Some of the data has been collected throu personal observation. Editing, classification and tabulation of the fi collected from the above-mentioned source have been done as per the of the study.

LIMITATIONS OF THE STUDY

In spite of the precautions and care taken to make for study objective, denied that there are certain procedural or technical limitations. It is n judge all the parameters to evaluate the efficiency in a wide and dyna working capital management. Thus, the major limitations of the stud

- The study is limited to ten years (1991- 2000)
- The data used in this study has been taken from published an only hence, grouping or sub-grouping and annualisation of data affect the result
- It is not possible to collect primary data from the company off

The findings of the study with detailed explanation are as follows.

1. Working Capital Ratio:

This ratio expresses the associations of the amount of current assets to of the current liabilities. This ratio is also known as current ratio. Th ratio supposed, the greater the ability of the firm to pay its current obli higher the working capital ratio, the larger is the amount of rupees a rupee of current liability and accordingly, the greater is the feeling of s ratio must be regarded as a crude measure of liquidity, however, bec not take into account the liquidity of the individual components of assets. Conventionally, 2 to 1 ratios, i.e. double the current assets as co current liabilities, is taken to represent a good short-term solvency p observed from Table 1, it shows overall a decreasing trend in the wor ratio of the organization during the period of study. The ratios decre increase in current assets and slight increase in current liabilities. This between 199 per cent in the year 1999 and 410 per cent in the year 1991 period of study. In the initial four years of the study the company excessive liquidity. On an average, the ratio is 276 per cent. The wor ratio of the company has achieved the conventional standard of 2:1 ex year 1999. Hence, judged from the conventional standard it reveals that t position of the company is satisfactory. The average of working capital good working capital and solvency position for the organization. On t the analysis of the ratio of the organization, it can be concluded that the creditors' position regarding their claims is safe because the company ha funds in the form of current assets to meet their claims.

2. Acid Test Ratio:

This ratio is concerned with the relationship between liquid assets and liquid liabilities to supplement the information given by the working capital ratio. It is also known as quick ratio or liquid ratio. It is a more rigorous test of liquidity than the working capital ratio and gives a better picture of the firm's ability to meet short-term obligations. Rule of thumb is 1:1 for the liquid ratio, so that if a company has liquid ratio of at least 100 per cent, it is considered to be in a fairly good liquidity position. **Table 1** shows the trend of the acid test ratio of the company during the period of study was alarming. It shows a significant volatility over the year. The ratio fluctuated between 85 per cent in 2000 and 212 per cent in 1991. During 1991 to 1996, the ratio was higher than the conventional ratio of 1:1 during the study period. It shows sound liquidity position of the company, but it also shows that cash and other liquid assets remained idle during the period. The management could not utilize these assets properly. There is also lack of proper investment policy. In the year 1997 to 2000, the ratio was lower than the conventional ratio, it reflected that liquid assets were not sufficient to meeting short-term obligations and a major part of current assets had been invested in inventory. On an average, the ratio is 144 per cent, considered as good.

3. Current Assets to Total Assets Ratio.

This ratio expresses the relationship between the amount of current assets, and the amount of investment in total assets. It helps to determine the significance of current assets in the total assets of company. From Table 1, it is evident that on an average about ½ of the total assets (i.e. 50 per cent) of the company, are current assets. It indicates that during the period of study the major portion of the total investment of the company has been made for working capital purpose. It shows that the share of current assets in total assets which fluctuated between 59 per cent in 1993 and 36 per cent in 1997. Table 1 shows that the share of current assets in total assets, which was 59 per cent in 1993 rapidly, decreased to 36 per cent in 1997. So, during the period 1993 to 1997 the share of current assets in total assets decreased by 23 per cent showing the low rate of investment in current assets than fixed assets. It is observed that although this ratio has increased in the first three and last four years of the period of study (i.e. first three 91, 92, 93 and last four 97,98,99 & 2000). The decline in the current assets to total assets ratio during the period 1993 to 1997 might have been due to the expansion programme of fertilizers units.

4. Current Assets to Sales Ratio

This ratio indicates the efficiency with which working capital turns into sales. A lower ratio indicates by and large a more efficient use of funds and a high ratio indicates unnecessarily blockage of funds 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 company. Table 1 shows that the ratio has fluctuated ov the year and given a mixed trend. The ratio of current assets to sales compared corresponding previous year's data shows that the ratio has increased in the yea 1993, 1994 1996 1999 and 2000. The maximum and minimum value of the ratio 122 per cent in the year 2000 and 91 per cent in the year 1992, respectively. On average the ratio has been 105 per cent.

5. Inventory to Sales Ratio or Age of inventory

The inventory to sales ratio or age of inventory helps to determine liquidity inventory. This ratio or period indicates the efficiency of the management inventory. It is observed from Table 1 that the ratio showed an assorted trend duri the period of study. This ratio varies between 139.67 per cent (or 261 days) in 20 and 254.98 per cent (or 143 days) in 1995 during the period of study. Wi fluctuations of ratio do not indicate effective control over inventory. The ratio w highest in the year 1994-95 due to less investment in inventory; there is a lack effective inventory conversion policy.

6. Debtors to Sales Ratio (or Age of Debtors)

The debtor to sales ratio or age of debtors gives an indication of the efficiency of t credit and collection policies of the enterprise. In other words, this ratio indicat the velocity of debt collection of the company. It is a test of the liquidity in whi debtors are expected to be converted into cash within a short period. Hence, t liquidity of a concern to pay its short-term obligations in time depends upon t equality of its debtors. It is shown in Table 1 that it decreased from 43 per cent (157 days) in 1991 to 30 per cent (or 110 days) in 2000. This indicates good performan in collection of debtors on the part of the company. The study of variations of t ratio of the company evidences that the all time best position is 21 per cent (or days), which relates to the year 1997. The mean of this ratio during the period study is 32 per cent (or 118 days). It indicates the management of debtors of t company has been encouraging, but an overall analysis of debtors, we will fi lack of a uniform policy regarding collection of debtors, during the period of stud

7. Working Capital Turnover Ratio

This ratio expresses the relation of the amount of sales to the amount of net workir capital. It indicates the velocity of the utilization of net working capital. This rat measures the efficiency with which a company is using the working capital. In th analysis, Table 1 suggested assorted trends of the ratio during the period of stud This ratio varies between 125 per cent in the year 1991 and 193 per cent in the ye 1997. The ratio of the company has achieved the good standard. On an average, t ratio is 160 per cent; it means working capital utilized effectively during the peri of study.

8. Composition of Working Capital

The component wise analysis of working capital enables one to examine in which component the working capital funds are locked up and to find out the factors responsible for significant changes in working capital of different years. Table 2 shows the share of each component in gross working capital calculated in percentages separately for each of the years during the study. The average share in percentages for all the years has also been calculated. Out of the four components of working capital, the components namely inventory, debtors, cash and Bank and other current assets including loans and advances show a significant volatility over the year, i.e. 83, 51, 03 and .168 percent respectively. Towards the working capital, the component of inventories contributed the highest (114 per cent) in the year 2000. During the period of study a remarkable change in the share of different components of working capital took place. The inventory to working capital ratio fluctuated between 56 per cent in 1992 as against 114 per cent in 2000. A large tie up of funds in form of inventory adversely affected the liquidity and profitability of the company. Debtors, another major component of working capital, decreased from 53 per cent in 1991 to 49 per cent in 2000. It fluctuated between 40 per cent in 1994 to 63 per cent in 1995.

The share of cash and bank in working capital increased from 2 per cent in 1991 to 5 per cent in 2000. It varies between 2 per cent (in 1991, 1993, 1996, 1998, and 1999) and 7 per cent (in 1995). In a systematic financed business, cash and bank will probably run not less than 5 to 10 per cent of current assets. Table 2 shows that the company did not maintain necessary cash and bank balance during the period of study. This adversely affected the profitability and efficiency of the company.

One very important feature is that during the period of study, 168 per cent of total investment in working capital was made for other current assets including loans and advances whereas only 51 per cent was blocked up in form of debtors.

The liquidity position of a company is mostly affected by the various components of working capital in as much as any considerable shifts from the relatively more current assets to the relatively less current liabilities, it naturally affects the payment of its current obligations promptly. Hence, to determine the liquidity position of NFL, a comprehensive test has been done in Table 3. A technique of "ranking" has been used to determine a more comprehensive measure of liquidity in which four factors namely, inventory to current assets ratio, debtors to current assets ratio, cash and Bank, to current assets ratio and other current assets including loans and advances to current assets ratio have been combined in a points score. In case of inventory to current assets, a lowest value indicates relatively a more favorable position, of the company. On the other hand, 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 also indicates relatively favorable position and ranking has been done in that order.

Ultimate ranking has been done on the principle that the lower the points sc the more favorable are the liquidity position. Table 3 shows, that the year registered the most sound liquidity position and was followed by 1995, 1994, 1996, 1993, 1997, 1991, 1999, 2000 and 1998 respectively in that order. The fluctua in the liquidity position over different years of the period of study may be a p for analysis into the financial activities of the concern.

CONCLUSION

(i) From the viewpoint of the conventional standards of working capital and liquid ratio, it is indicated that the short-term liquidity position of the comp is considered to be good. Liquid assets are insufficient to meet currently matu obligations. A major part of the funds is blocked up in form of inventories.

(ii) The mean percentage of current assets to total assets which is 50, deter that the company has made investment in working capital following conservative approach. It is also suggested the company did not want to take of maintaining a lower level of current assets. During the period 1993 to 199 share of current assets in total assets has decreased by 23 per cent. It indicates the company had wanted to change its approach regarding investment in cu assets.

(iii) The ratio of current assets to sales has decreased in the year 1992, 1995 & and has increased in the remaining years of the period of study, the variatio the ratio is exceptionally high. It indicates inefficient utilization of funds.

(iv) An analysis of inventory to sales ratio or age of inventory reveals tha ratio increases in the first three-year and than after ratio expresses decreasing tr during the period of study. It indicates there is no effective control on invento is not a healthy sign for the company and the management needs to give efficac attention to manage its inventory effectively.

(v) Debtor to sales ratio or age of debtors of the company deliberates the vel of debt collection policies adherent by the enterprise. This has been encourag

(vi) The component wise analysis of working capital deliberates that the sha inventory constitutes 56 per cent to 114 per cent of the working capital, on an ave of 83 per cent. Debtors constitute 40 per cent to 63 per cent, cash & Bank const 02 per cent to 07 per cent and other current assets including loans & adva constitute 132 per cent to 200 per cent, in the company. In the component analysis of working capital inventories remained the dominant subsc throughout the period of study. Hence, all the relevant techniques of inven control should be employed to maintain the excellent level of inventory.

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TABLE - 1

NATIONAL FERTILIZER LTD.

SELECTED RATIOS RELATING TO WORKING CAPITAL MANAGEMENT

PARTICULARS	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	AVER.
Working Capital Ratio (%)	410	399	339	327	238	230	201	213	199	206	276
Acid Test Ratio (%)	212	231	178	187	144	132	91	88	95	85	144
Current Assets to Total	53	55	59	51	49	46	36	44	49	53	50
Assets Ratio (%)											
Current Assets to Sales Ratio (%)	106	91	100	103	99	109	103	101	116	122	105
Inventory to Sales Ratio. (%)	194	261	209	225	255	215	177	169	166	140	201
Age to Inventory (days)	188	140	174	162	143	170	205	217	220	261	188
Debtors to sales Ratio (%)	43	39	39	29	36	28	21	23	35	30	32
Age of Debtors (Days)	157	142	142	106	131	102	77	84	124	110	118
Working capital Turnover(%)	125	146	141	139	174	162	193	186	172	159	160
(Sales/W.C.)											

Source: Complied from published Annual Report of NFL

TABLE - 2

Components of working capital with respective percentage of National Fertilizer Limited

Particulars	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average
Inventory to working capital (%)	64	56	67	61	68	75	108	110	104	114	83
Debtors to working capital (%)	53	56	55	40	63	46	41	43	61	49	51
Cash and Bank to working capital (%)	02	03	02	04	07	02	04	02	02	05	03
Other current Assets including loans	.132	.133	.142	.144	.172	.177	.198	.188	.200	.194	.168
and Advances to working capital (%)											

Source: Complied from Annual Report of NFL

Table 3

STATEMENT OF RANKING IN ORDER OF LIQUIDITY OF NATIONAL FERTILIZER LIMITED

Year	Inventory to current Assets (%) (1)	Debtors to Current Assets (%) (2)	Cash and Bank to Current (%) (3)	Other Current assets including Loans and Advances to current Assets (%) (4)	Liquidity Ranks				Total Ranks	Ultimate Rank
					(1)	(2)	(3)	(4)		
1991	48	40	01	10	6	2	8	10	26	7.5
1992	42	42	02	13	2	1	4	8	15	3
1993	47	39	01	12	5	3	8	9	25	5.5
1994	43	28	03	26	3.5	6	2	2	13.5	2
1995	39	37	04	19	1	4	1	4	10	1
1996	43	26	01	30	3.5	7	8	1	19.5	4
1997	55	20	02	23	8	10	4	3	25	5.5
1998	59	23	01	18	10	9	8	5	32	10
1999	52	30	01	17	7	5	8	6	26	7.5
2000	58	25	02	14	9	8	4	7	28	9

Source: Complied from Annual Reports of NFL