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Working Capital Management: An Essential Tool of Business Finance - A Case Study of National Plastic Industries Limited (NPIL)

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Abstract: *Working capital is an integral part of overall business finance for the smooth operations of a business enterprise. An optimal management of working capital is one of the pre-conditions for the success of an enterprise. Efficient management of working capital ensures that the business operating cycle keeps moving without any hurdles in terms of payment of liabilities and procurement of raw materials. Efficient management of working capital means management of various components of working capital in such a way that adequate amount of working capital and liquidity is maintained for smooth running of an enterprise. The flow of money gets choked, the supplies are interrupted and payments are delayed in the event of inefficient management of working capital. While inadequate working capital has the potential to disrupt production or sales operation and is a disastrous, excessive working capital has an adverse impact on profitability and is a criminal waste. Management of working capital is regarded as an essential tool of business finance focusing on maintaining optimum levels of both the components viz. current assets and current liabilities. Thus there is an imperative need to manage working capital effectively.*

In this study, we have selected National Plastic Industries Limited as a sample and taken the financial data for the period of five years from 2006-07 to 2010-11 and studied the effect of different components of working capital.

Key Words: *Working capital, Optimum level, Inadequate, Liquidity, Inefficient, Profitability.*

I. Introduction

The working capital is the life-blood and nerve centre of every business enterprise. No business can run effectively without adequate quantity of working capital. Management of working capital is an integral part of overall corporate management. A business enterprise with ample working capital is always in a position to take advantages of any favorable opportunities either to purchase raw-materials or implement a new special order or to wait for enhancing market status. Working capital can be utilized for meeting day-to-day expenses and for maintaining fixed assets that are involved in everyday life of a business enterprise. It is rightly said that the overall success or failure of a business enterprise mainly depends upon how the enterprise manage its working capital. Thus, proper management of working capital has become an essential part every business enterprise because it shows the efficiency and financial strength of an enterprise.

In modern financial management, administration of working capital is an important and challenging task due to high proportion of working capital in the business finance. In fact, it is the activity of the finance manager to provide adequate working capital to maintain the balance between liquidity and profitability of a business enterprise. Liquidity and profitability are the two major aspects of corporate business life. If we emphasize on liquidity, it will adversely affect the profitability and similarly if we emphasize more on profitability, it will adversely affect the liquidity. Therefore proper management between the two should be the basic objective of the working capital management.

Efficient management of working capital means management of various components of working capital in such a way that an adequate amount of working capital is maintained for smooth running of an enterprise and for fulfillment of objectives of liquidity and profitability. But, it is very difficult for the finance manager to estimate working capital properly because the amount of working capital varies across business enterprises over the periods depending upon the nature of business, raw-materials used, technology, finished products, degree of competition in the market, credit policy, etc. Therefore, effective provision of working capital in the form of different current assets and its proper management has become an essential part of business finance.

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II. Business Finance And Working Capital

Every business concern requires money or finance to commence or continue its operations and for the growth or expansion of the business.

Business finance is business activity which is concerned with the acquisition and conservation of capital funds in meeting the financial needs and overall objectives of a business enterprise.

The finance or capital requirement of a business can be broadly classified into two main categories viz. fixed capital requirements and working capital requirements. The long-term capital or fixed capital is the core of the business, the main bearing around which the short-term or working capital revolves. The former is spent in obtaining fixed assets while later is required as current assets for effective utilization of those fixed assets. The former provides the necessary means of production while the later provides all necessary expenses that are required for day-to-day operations. Thus, finance in business is required to be invested in fixed and current assets in suitable doses so that the business is carried on smoothly without any interruption. Management functions like planning, organizing, directing, coordinating and controlling can not discharged efficiently without adequate finance. Therefore, the success and survival of every business depends not only upon the availability of adequate fixed assets but also on the efficient management of short-term or working capital i.e., Current assets and Current liabilities. Working capital management policies of a firm has a great importance on its profitability, liquidity and structural health. It is three dimensional in nature as:

- It is concerned with the formulation of policies with regard to profitability, liquidity and risk.
- It is concerned with the decisions about the compositions and level of current assets.
- It is concerned with the decisions about the compositions and level of current liabilities.

Guided by the above criteria and policies, the finance manager will use a combination of policies and techniques for the management of working capital as a tool of business finance.

III. Company Profile Of National Plastic Industries Limited (NPIL)

National Plastic started its production in a very humble manner in the year 1952 in a 500 sq.ft. Premises, manufacturing Plastic Buttons for shirts etc. Slowly and steadily it kept on innovating new and interesting homeware products which at a later date became the main thrust of innovation for the company. It did not take National Plastic to become not only India’s largest manufacturer of households products but also the largest exporter of plastic houseware in India. The brand ‘NATIONAL’ became a household name in Plastics in India. National Plastic Industries Ltd., then took a quantum leap and commenced the commercial production of Molded Furniture in 1994 and since then has gone from strength to strength. Besides chairs, the Company is one of the Pioneers in bringing in a revolution for the use of Plastic Crates for the Beverage Industry in India. Today Plastic Crates are very well accepted all over India for soft-drink Industry. International brand like PEPSI, COCA-COLA etc. are using National crates for crating their bottle besides numerous national and local brands.

National Plastic has been marketing their products under the brand name “NATIONAL”. Today National Plastic Industries Ltd. is an ISO- 9001: 2008 ACCREDITED COMPANY and NATIONAL products are available across 36 countries including America and Australia etc.

National Plastic Industries Ltd. with its constant endeavor for innovation will continue to introduce many new and innovative products both for domestic as well as International markets and thereby will fulfill its commitments to the society as a whole by offering premium quality products at the most affordable prices.

IV. Literature Review

National Council of Applied Economic Research (NCAER), in 1966 conducted a study entitled “Structure of working capital” with special reference to three industries, namely fertilizers, cement and sugar. This study was mainly devoted to the analysis of composition of working capital in these industries for the period 1959 to 1963. However, NCAER failed to put into sharp focus the various components of working capital.

Ram Kumar Mishra (1975) made a study at the University of Rajasthan under the title “Problem of working capital” with special reference to public enterprises during the period 1960-61 to 1967-68. No doubt, the basic issues outlined in Dr. Mishra’s study and finding therein are relevant to many of the units in the public sector even today, but due to the functional and structural changes that public enterprises have witnessed in the post- 1968 era, a repeated effort on a different sample is called for to bring the prescriptions up to date.

Dr. N.K. Agrawal (1977) made a study at the University of Delhi on the “Management of Working Capital” in respect of certain large manufacturing and trading public limited companies. The sample of this study covered 34 companies in all and related to the period 1966-67 to 1973-74. Dr. Agrawal observed that although most of the companies were making use of modern techniques in the areas of inventory, receivables and cash management, there appeared a sufficient scope for reduction in investments in almost all the segments of working capital.

A study conducted by Vijayasaradhi and Rao (1978) on the " problem of working capital management in public enterprises" revealed that the management of working capital played a key role in the success of the business. The study indicated that increasing trends in the investment of current assets resulted in higher carrying cost which, in turn, negatively affected the profitability position of the company.

Jain, Yadav and Surendra made a study on working capital management practices of public sector enterprises in India. This study was based on an analysis of 13-year period data from 1991 to 2003 of 137 public sector enterprises and stated that, a business organization has to be conscious that inadequate working capital can disrupt its operations and may lead to illiquidity. At the same time excessive working capital is also not desirable since it adversely affects profitability.

Deloof, M. (2003) posits that managers can increase profitability by reducing the number of days of accounts receivables and inventories.

Banomyong (2005) highlighted that a company with a lower cash conversion cycle is more efficient because it turns its working capital over more number of times in a year, which means that it generated more sales per unit of money invested in working capital management.

Gupta (2010) highlighted that better working capital management can significantly help companies to improve their growth rates vis-à-vis competitors and ultimately increase the wealth of their shareholders.

All the above studies provide us a solid base and give an idea regarding working capital management and its components. They also give us the results and conclusions of those researches conducted on the same area for different countries and environment from different aspects. Therefore the present study has been taken up for research since no studies has been conducted so far in such industries.

V. Objective of the Study

Keeping in view the importance of working capital management in business finance, an attempt is made to study the contribution towards a crucial element in financial management. The specific objective of this article is to have a comprehensive analysis of working capital decisions and practices followed by National Plastic Industries Limited (NPIL) over the past five years through a study of working capital trend, liquidity ratios and efficiency ratios related to utilization of current assets. The study will help to highlight the relative importance of working capital management as an essential tool of business finance.

VI. Research Methodology

For this study, one of the leading plastic industries in India namely National Plastic Industries Ltd., Mumbai has been purposively selected. The period of study covers five years, from 2006-07 to 2010-2011. The study covers mainly the Working capital trend and analysis, Efficiency of working capital and Test of liquidity and profitability.

The data for the study was collected from the annual reports of the selected company. Various techniques of ratio analysis namely Current Ratio, Quick Ratio, Working Capital Turnover Ratio, Return On Capital Employed (ROCE), Current Assets to Total Assets Ratio etc. are used for analyzing the data. Analysis is based on secondary data. Secondary data sources are Balance Sheets and Profit and Loss Accounts for the past five years which are extracted from the annual reports of the company. The key financial ratios have been computed for all working capital decisions.

VII. Trend of Working Capital

The working capital trend plays the most important part in determining the level of operational activities of a business. It involves two respective aspects viz. level of investment in working capital and structure of working capital. The position of National Plastic Industries Limited is explained with the help of figures given in Table 1.1.

From this analysis, it is clear that the level of investment in working capital has registered an increasing trend from 2006-07 onwards. It has increased from Rs. 13.69 crores in 2006-07 to Rs. 21.89 crores in 2010-2011. It dropped marginally from Rs. 20.26 crores in 2008-09 to 20.05 crores in 2009-2010.The share of current assets in the total assets as depicted by the CA/TA ratio has been on the fluctuating trend, decreasing one year and then increasing next year. It has fluctuated between 69.40 per cent in 2006-07 to 96.58 per cent in 2007-08 with an average of 83.18 per cent during the period. It shows an investment level above 50 per cent of total assets of the concern. It also clearly indicates that over investment in current assets is there which, too, not a good sign is for the company.

Table 1.1: Working Capital Trend of NPIL

……. Rs. in Crores…….

Particulars	2006-07	2007-08	2008-09	2009-10	2010-2011
Current Assets (A)					
Inventories	6.03 (32.99)	7.48 (28.13)	5.66 (21.46)	7.82 (27.06)	11.62 (39.62)
Sundry Debtors	9.71 (53.11)	8.86 (33.32)	11.01 (41.75)	11.78 (40.77)	10.54 (35.93)
Cash and Bank	0.37 (17.05)	0.40 (4.06)	0.54 (5.90)	0.30 (3.33)	0.55 (8.29)
Loans and Advances	2.17 (11.87)	9.85 (37.04)	9.15 (34.70)	8.99 (31.12)	6.63 (22.60)
Total Current Assets	18.28 (100.00)	26.59 (100.00)	26.37 (100.00)	28.89 (100.00)	29.33 (100.00)
Current Liabilities (B)	4.59	11.36	6.11	8.84	7.44
Net Working Capital (A-B)	13.69	15.23	20.26	20.05	21.89
Total Assets	26.34	27.53	31.81	32.00	38.22
CA/TA Ratio (%)	69.40	96.58	82.90	90.28	76.74

Source: Compiled and computed from the Annual Report of NPIL 2010-2011.
(Note: Figures in parentheses show percentage of respective item taking total current assets as hundred.)

It has fluctuated between 69.40 per cent in 2006-07 to 96.58 per cent in 2007-08 with an average of 83.18 per cent during the period. It shows an investment level above 50 per cent of total assets of the concern. It also clearly indicates that over investment in current assets is there which, too, not a good sign for the company. This is the pursuance of conservative policy by the management during the period of study. So, lower level of liquidity would be there with a low degree of risk but low profit too. Sundry debtors have the lion's share among the current assets. They are followed by inventories, loans and advances and then cash and bank balances. The share of inventories has shown a fluctuating trend throughout the period under study. So in the case with other components too.

On an average, the short term solvency position of the company, as far as the availability of current assets is concerned, seems to be more than enough. There is still much scope in improving the investment level of current assets to avoid any over or under-investment in current assets.

VIII. Test of Liquidity or Solvency

An analysis of the liquidity of working capital is useful both to short-term creditors and internal management of a concern. To the internal management it indicates whether the working capital is sufficient or not and to what extent the concern has over or under invested cash in its operating cycle.

Thus the liquidity of working capital can be judged in terms of its relation with firm's debts. The following ratios may be used for this purpose.

I. Current Ratio = Current Assets/ Current Liabilities
II. Quick Ratio = Current Assets- Inventory/ Current Liabilities

These two ratios are the index of solvency of a firm. It indicates the ability of an enterprise in regard to meeting its current liabilities and the ratio shows the number of times the current assets are able to pay current liabilities.

Table No. 1.2, 1.3 shows the liquidity or solvency position of National Plastic Industries Limited (NPIL) during the period of study.

Table 1.2 Current Ratio of NPIL for the period 2006-07 to 2010-2011

Year	Current Assets	Current Liabilities (Rs. in crores)	Current Ratio (Rs. in crores)
2006-07	18.28	4.59	3.98
2007-08	26.59	11.36	2.34
2008-09	26.37	6.11	4.31
2009-2010	28.89	8.84	3.26
2010-2011	29.33	7.44	3.94
Average of Current Ratio			3.57

Source: Compiled and computed from the Annual Reports of NPIL 2010-2011.

From the above analysis, considering all the years together on average the current ratio was 3.57: 1. Current ratio of NPIL was ranging between 2.34:1 in 2007-08 to 4.31:1 in 2008-09. It fluctuated every year. This ratio was ranging around the average during the major part of the study but not a single year registered the standard ratio of 2:1. Only in the year 2007-08 the ratio registered near to standard ratio, which means the company maintained a high liquidity during the entire study period.

If the conventional liquidity of 2:1 is considered as a norm, the working capital of NPIL is observed to be excess. The liquidity position appears to be very high during most of the period under study. Maintenance of adequate liquidity without interrupting the profitability is the foremost requirement of sound and efficient working capital management. From this perspective, it may be undesirable on the part of companies as such funds are either non-earning or earn very little. Thus excessive liquidity may be the indication of lack of management practices.

Table 1.3 Quick Ratio of NPIL for the period 2006-07 to 2010-2011

Year	Quick Assets (Rs. in crores)	Current Liabilities (Rs. in crores)	Quick Ratio
2006-07	12.25	4.59	2.67
2007-08	19.11	11.36	1.68
2008-09	20.71	6.11	3.39
2009-2010	21.07	8.84	2.38
2010-2011	17.72	7.44	2.38
Average			2.48

Source: Compiled and computed from the Annual Report of NPIL 2010-11.
Note: Quick Assets = Current Assets- Inventories.

The conventional standard of quick ratio is 1:1. The quick ratio of NPIL is ranging from 1.68 in 2007-08 to 3.39 in 2008-09. The mean of this ratio is 2.48 and during most of the year of study the ratio marked higher than the standard ratio 1:1 except in the in 2007-08. It is evident that the quick ratio of NPIL is more than satisfactory and liquidity was very strong during the study period.

IX. Efficiency of Working Capital

A close relationship exists between sales and net working capital. With any increase in sales volume, there is corresponding increase in a working capital. The overall efficiency with which working capital funds are used can be measured by working capital turnover ratio. In other words, the ratio helps to assess the degree of efficiency in the use of short term funds for generating sales. The working capital is considered to be efficiently circulated when it is turned over quickly, since the greater the circulation, the lower the investments in working capital. Working capital turnover ratio is computed as follows:
WTR= Net Sales / Net Working Capital.

The following Table No. 1.4 shows the Working Capital Turnover Ratio of the company under study.

Table 1.4 Working Capital Turnover Ratio of NPIL: 2006-07 to 2010-2011

Year	Net Sales	Net Working Capital	Net Working Turnover
	(Rs. in ………………	…crores)	(in times)
2006-07	34.47	13.69	2.52
2007-08	32.19	15.23	2.11
2008-09	38.99	20.26	1.92
2009-2010	49.29	20.05	2.46
2010-2011	56.30	21.89	2.57
Average			2.32

Source: Compiled and computed from the Annual Report of NPIL 2010-11.

It is seen from the table that the working capital turnover ratio decreased gradually from the beginning year of study to the year 2007-08 and 2009. But an increasing trend is observed in the next two years and trying to cope up with 2.57 times in 2010-2011. The reason for decreasing in the turnover was that sales decreased in 2007-08 but net working capital increased from 13.69 crores to 15.23 crores. In the year 2008-09 the turnover of working capital was decreased inpite of increased in sales. The reason was that the relative speed of increase in working capital was higher than the speed of increase in sales. In the last two years 2009-2010 and 2010-2011 the ratios were 2.46 and 2.57 times respectively. The sudden increase in turnover ratio may be due to decrease in working capital and constant increase in sales during the last two years of study.

X. Test of Profitability

Table 1.5 Profitability position of NPIL: 2006-07 to 2010-2011

Year	(1) CA	(2) FA	(3) TA (1+2)	(4) CL	(5) TA-CL (3-4)	(6) EBIT	(7) ROCE (6/5)*100
2006-07	18.28	12.66	30.94	4.59	26.35	1.93	7.32
2007-08	26.59	12.31	38.90	11.36	27.54	2.55	9.26
2008-09	26.37	11.43	37.80	6.11	31.69	3.33	10.51
2009-2010	28.89	11.69	40.58	8.84	31.74	6.11	19.25
2010-2011	29.33	12.82	42.15	7.44	34.71	5.65	16.27

Source: Compiled and computed from the Annual Report of NPIL
Note: CA-Current Assets; FA- Fixed Assets; TA- Total Assets;
EBIT- Earning Before Interest and Taxes; ROCE- Return On Capital Employed.

Table 1.5 shows the profitability position of National Plastic Industries Limited with the help of Return On Capital Employed (ROCE). It indicates that profitability of NPIL has increased more than two times in a span of 5 years. It has increased from 7.32% in 2006-07 to 16.27% in 2010-2011. But a fluctuation is observed in the last year of study. In this year, the ROCE has decreased marginally from 19.25% in 2009-2010 to 16.27 in 2010-2011.

XI. Conclusions and Suggestions

From the entire foregoing analysis of working capital management of National Plastic Industries Limited (NPIL), the following observations are made in brief as conclusions:

1. The overall size of net working capital of sample unit had maintained a raising trend throughout the period under study except in the year 2009-2010. The amount of net working capital was Rs.13.69 crores in 2006-07 and gradually increased to Rs. 21.89 in 2010-2011. The increased in net working capital is attributed to the faster rise in the size of current assets.
2. The size of current assets and current liabilities were increased during the study period due to increase in sales or activities.
3. Inventories and Sundry debtors were the major and key components of current assets in the sample unit.
4. The suggested ideal or standard current ratio and quick ratio were not found even for a single year of study in the sample unit. The current ratio has been well above 2:1 throughout the period under study. It is true that the higher the current ratio, the more the firm’s ability to meet current obligations but such a high ratio is not considered very good for the concern. It indicates slack management practices of the concern.

5. The average working capital turnover ratio was very low during the period of study, which probably shows the excess of working capital during these periods. It shows that the current assets were not effectively utilized due to poor management of working capital.

From the above conclusions, the following suggestions can be made for improving the management of working capital in the private sector enterprise. It can prosper the industries not only to their own expectations but also to that of Government, Consumers, Investors and Employees.

1. The industry should try to control the growth rate of current assets as compared to current liabilities to some extent as per the industry needs and situations to maintain proper level of net working capital.
2. The industry should try to maintain a balance between liquidity and profitability position by improving current ratio and quick ratio. For this purpose the industry should develop some ideal standard of these ratios and try to maintain this standard ratio. The management must follow the ideal norm of 2:1 and try to maintain its ratio around it.

References:

[1]. Anusha Agrawal (2011). "How to Manage Working Capital: An Empirical Study of Maruti Suzuki India Limited". Journal of Accounting and Finance, Vol. 25, No. 2 pp 85-92.
[2]. Deloof, M. (2003). "Does working capital Management Affect Profitability of Belgian Firms?" Journal of Business Finance and Accounting. Vol. 30, No. 3-4. pp 573-588.
[3]. Garcia-Teruel, P.J. and Mertinez-Solano, P. (2007). "Effects of Working Capital Management on SME Profitability." International Journal of Managerial Finance, Vol. 3, No.2. pp 328-342.
[4]. Smith, K.V. (1973). "State of the Art of Working Capital Management". Financial Management. Vol. 2, No. 3. pp 50-55.
[5]. Jain P.K. Shveta Singh and Sunny Kapoor (2011). "Working Capital Management of Reliance Industries Limited- A case study".Journal of Accounting and Finance.Vol. 25, No.2 pp 3-16.
[6]. Jain Anupam (2010). Effect of Working Capital Management on Profitability of Firms: A study of the Indian Oil drilling and Exploration Industry, Global Journal of Business Management, Vol.4, No. 1 pp42-49.
[7]. Raheman, A. and Nasr, M. (2007). Working Capital Management and Profitability- case of Pakistani firms. International Review of Business Research Papers, 3(1), 279-300
[8]. Janaki Ramudu P. and Parasuraman N.R.(2011). Growth in Sales Compared with Changes in Profitability and in Working Capital –A Study of Indian Pharmaceutical Industry. Journal of Accounting and Finance, Vol.26, No.1 pp3-12.
[9]. Prasad R. Sivaram, Working Capital Management in Paper Industry, Finance India, Vol. XIV No. 2, June 2000, pp 125-127.
[10]. Agrawal N.K.., Cash Management in Indian Industries, The Chartered Accountant, July 1978, pp21-27.