
MANAGEMENT OF WORKING CAPITAL IN NATIONAL ALUMINIUM COMPANY

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Abstract

Working capital may be regarded as the lifeblood of a business. Its effective provision can do much to ensure the success of a business, while its inefficient management can lead not only to loss of profits but also to the ultimate downfall of what otherwise might be considered as a promising concern. Much has been rightly made of the long term planning of capital projects, but the cost to industry due to inadequate planning in the use of working capital is immeasurable.

A study of working capital, therefore, is of major importance to internal and external analysis because of its close relationship with current day to day operations of a business. This paper is an attempt to prove the importance of working capital management in National Aluminium Company. For this purpose all the major components of working capital are taken and for proving its importance statistical analysis has been used.

Keywords: Working Capital, Cash, Inventory, Receivables Management, Profitability, Sales

Introduction

A successful commercial organization needs two types of assets, viz fixed assets: land, building, plant, machinery, furniture etc. these are not purchased for the purpose of sale but for the purpose of earning profit for many years and second is current assets i.e. raw materials, work-in-progress, finished goods, sundry debtors, bills receivables, cash, bank balance etc. these assets are purchased for the purpose of production and sales, like raw material into semi finished products, semi finished products into finished products, finished products into debtors and debtors transferred into cash or bills receivables.

Working capital is an important part of finance having a decisive influence on the liquidity, which is regarded as the lifeblood of a business plays a pivotal role in keeping the wheels of a business. Working capital management has always been a fascinating subject from the academic point of view and it must be admitted that in the real world situation also, efficiency with which working capital is managed in a concern is of great significance for its overall well being – its growth and decline.

National Aluminium Company- An Overview

National Aluminium Company limited (Nalco) is considered to be a turning in the history of Indian Aluminium industry. In a major leap forward, Nalco has not only addressed the need for self-sufficiency in Aluminium but also given the country a technological edge in producing this strategic metal as per world standards. It was incorporated as a public sector enterprise of the under Ministry of mines, Government of India in 1981.

National Aluminium Company Limited, abbreviated as 'NALCO', has units all over India at places like Angul and Damanjodi. National Aluminium Company limited (Nalco) is Asia's largest integrated aluminium complex, comprising bauxite mining, alumina refining, aluminium smelting and casting, power generation, rail and port facilities, with the technology collaboration of aluminium Pechiney of France (now Alcan) ISO : 2000 certification of quality management, registration of products at London Metal Exchange, environment care conforming to ISO 14001, low cost operations and international customer base, Nalco enjoys the status of a five –star Export House.

Need for the Study

A lot of study on Financial Management of different companies has been done but as far as it is known to the researcher, there is hardly any of Working capital management and profitability analysis on NALCO. NALCO is largest integrated aluminium complex. Moreover, no comprehensive study is available which investigates these issues by taking the time period of 15 years (1995 -96 to 2009-10). This study is an attempt to fill this gap. The study may prove beneficial to the NALCO, the aluminium industry as also to the academics.

Collection of Data

Data and information are very important factor for any research. The secondary data will be collected from annual reports, other financial statements of NALCO and websites of NALCO. Besides these, various journals and periodicals such as Metal World, Centre for Monitoring Indian Economy(CMIE), information published by Ministry of mines will also be considered. Data will also be collected from article published by different websites.

Tools used for Analysis of Data

This study is concerned with the Working capital management and profitability position of NALCO. In order to achieve the objectives of the study, secondary data will be used. The collected data will be arranged in the form of tables so that meaningful inferences can be drawn. The analysis would be carried out by making use of both simple and advanced statistical tools including graphs, index numbers, percentages, multiple regression analysis, correlation and various parametric and non-parametric test.

Period of the Study

As far as the time period is concerned, I shall take the period of 10 years from 2000-02 to 2009-10 for examining the objective of study, which will be divided into three parts of 5 years each. Part 1 is started 2000-01 to 2004-05 and the Part 2 from 2005-06 to 2009-10. The performance of the company is evaluated on the basis of these three parts of study period.

Limitation of the study

There are some limitations of this study, which are given below:

- Temporal coverage: all the analysis, interpretation and findings will be derived from the financial year of 1995-96 to 2009-10. It has assumed that the study period was under normal condition.
- Data used in financial analysis has been collected on annual basis thus the result derived will be more useful for the long term plan and prediction not for short term. Further analysis will support mandatory to fundamental study.
- The area of this study is limited to the aluminium company only.
- This study is mainly based on secondary data. Therefore, reliability of conclusion of the study will be based on accuracy of secondary data and the limitation of using second hand information will also affect the study.

In spite of above limitations, the reliability and usefulness of the inference can not be ignored and will serve plethora of the purposes.

Objective of the Study

1. Evaluating the management of cash in the company.
2. Examining the credit policy and procedure of the company.
3. Analysis of the inventory management of the company.
4. Analyzing the working capital performance of the company.
5. Analyzing the effectiveness of working capital management in the profitability of the company.

Hypotheses

Following null hypotheses are to be proven-

1. H_0 : Cash Balance of the company does not affect its operating expenses.
2. H_0 : Company does not create the provision for doubtful debts according to size of receivables which is not affective for receivables.
3. H_0 : Level of inventory in the company does not affect its sales.
4. H_0 : Working Capital Management of the company does not affect its profitability.

Analysis of Cash Management in NALCO

H_0 =Cash Balance of the company does not affect its operating expenses.

Years	Cash And Bank Balance	Change in Times	Total Operating Expenses	Change in Times
2001	66.00		409.95	
2002	114.23	0.73	554.24	0.35
2003	49.56	-0.57	499.07	-0.10
2004	98.36	0.98	506.11	0.01
2005	755.21	6.68	639.85	0.26
2006	2193.71	1.90	708.02	0.11
2007	3686.53	0.68	781.56	0.10
2008	3516.46	-0.05	1022.24	0.31
2009	2869.04	-0.18	1257.25	0.23
2010	3152.35	0.10	1386.26	0.10
Average-Total	1650.15	1.14	776.46	0.15

Source: computed from annual reports of National Aluminium Company

Table 1 shows that there is a large gap between cash balance and operating expenses in the year 2001, but it was not largest. The largest difference between these two is happened in the year 2003 when the cash and bank balance is Rs. 49.56 crore and the operating expenses Rs.499.07 crore. The scenario has been changed from the year 2005 and it is continued till the end of the study period. Although, the trend of the cash and bank balance is fluctuating during the study period but ultimately it has grown from Rs.66.00 Crore in 2001 to Rs. 3152.35 Crore in 2010. On the other hand, total operating expenses shows the increasing trend throughout the study period. It has been reached to Rs.1386.26 Crore in 2010 from Rs.409.95 Crore in 2001. Total operating expenses is higher than the cash and bank balance during 2001 to 2004. Table depicts that most of the time cash balance shows good position of the company to meet its operating expenses.

Regression Analysis

The least square estimate of the equation $CASH=a+bTOE+e$

Where, CASH = Cash and Bank Balance and TOE = Total Operating Expenses

Variable	Coefficient	Std. Error	t-value	p-value	Co-efficient of Correlation
Constant	-1272.68	823.07	1.5463	0.0803	
TOE	3.7643	0.9803	3.8399	0.0025	0.805157
Standard error of estimate (SEE)				990.3241	
Coefficient of determination (R-squared)				0.6483	

The table 2 shows that the co efficient of correlation between Cash and Bank Balance and Total Operating Expenses show high degree of co-relation of 0.81. The impact of total operating expenses on cash and bank balance is shown with the help of regression analysis. The table shows that for a unit change in total operating expenses, cash and bank balance changes 3.76 units, which is statistically significant at 5% level. Total Operating Expenses explain 64 % of the variation in the Cash and Bank Balance in the NALCO. The table shows the satisfactory table, thus the null hypothesis has been rejected.

Analysis of Receivables

H_0 = NALCO does not create the provision for doubtful debts according to size of receivables which is not affective to company's credit policy.

Structure of Receivables

Year	Debts Over Six Months	Less: Provision For Doubtful Debts	Total Debt Over Six Months	Others	Total	Change in Times
2001	198.18	42.29	155.89	107.18	263.07	
2002	186.41	42.30	144.11	113.72	257.83	-0.02
2003	70.73	42.66	28.07	73.76	101.83	-0.61
2004	97.57	42.83	54.74	47.50	102.24	0.00
2005	55.31	40.62	14.69	78.12	92.81	-0.09
2006	40.77	40.63	0.14	29.28	29.42	-0.68
2007	41.03	40.63	0.40	33.73	34.13	0.16
2008	40.96	40.56	0.40	60.25	60.65	0.78
2009	39.56	39.12	0.44	26.06	26.50	-0.56
2010	39.22	39.10	0.12	181.66	181.78	5.86
Average	80.97	41.07	39.90	75.13	115.03	0.54

Source: computed from annual reports of National Aluminium Company

Table 3 depicts that Debt over Six Months reduced over the period from Rs.198.18 Crore in 2001 to Rs.39.22 Crore in 2010. Total size of receivables is fluctuated throughout the study period but finally it reduced to Rs.181.78 Crore in 2010 from Rs.263.07 Crore in 2001. Reduction in receivables shows the rigid credit policy of the company.

Regression Analysis:

The least square estimate of the equation $RCBL=a+bPDD+e$

Where, RCBL=Receivables and PDD= Provision for Doubtful Debts

Variables	Coefficient	Std. error	t-value	p-value	Coefficient of correlation
Intercept	-997.72	856.76	1.1645	0.14	
PDD	27.09	20.85	1.30	0.12	0.42
Standard Error of Estimate (SEE)				86.36	
Coefficient of determination (R-squared)				0.17	

Table 5 shows that one unit change in Provision for Doubtful Debts changes 27.09 units in total Receivables, which is statistically not significant at the level of 10 percent. The result also shows moderate degree of correlation of 0.42 between these two variables. This result is not satisfactory, thus, it is proved that size of receivables and provision for doubtful debts are not affected by their change in value, this is the result of company's rigid credit policy.

Analysis of Inventory

H_0 = Level of inventory in the company does not affect its sales.

Year	Raw Materials	Stock In Trade	Stores Etc.	Total	change	Gross Sales	Change
2001	48.25	144.88	214.07	407.20		2406.32	
2002	57.52	164.33	262.47	484.32	0.19	2385.74	-0.01
2003	71.61	137.60	280.04	489.25	0.01	2739.67	0.15
2004	48.08	148.85	283.55	480.48	-0.02	3338.87	0.22
2005	56.17	175.41	297.48	529.06	0.10	4439.99	0.33
2006	50.48	235.35	305.75	591.58	0.12	5287.36	0.19
2007	82.45	246.60	305.91	634.96	0.07	6514.51	0.23
2008	65.59	266.93	354.13	686.65	0.08	5474.45	-0.16
2009	68.38	362.90	410.62	841.90	0.23	5517.52	0.01
2010	64.57	351.00	529.35	944.92	0.12	5311.4	-0.04
Average	61.31	223.39	324.34	609.03	0.10	4341.58	0.10

Source: computed from annual reports of National Aluminium Company

Table 7 shows that the size of inventory is increasing every year except 2004 while it is reduced slightly i.e. .02 times, total inventory reached to Rs.944.92 Crore in 2010 from Rs.407.20 Crore in 2001. Average change in inventory is .10 times increase every year.

In the total inventory, the stores and spares etc. has bigger portion as compared to raw materials and stock in trade. The average stores, spares etc. is Rs.324.34 crore, while raw material and stock in trade are Rs.61.31 Crore and Rs.223.39 Crore respectively, which shows that company keeps low volume of raw material.

Impact of Inventory to Sales of NALCO

The least square estimate of the equation $SALE = a + b \text{ INV} + e$

Where, SALE = Gross Sales of the company and INV = Total Inventory

Variable	Coefficient	Std. error	t-value	p-value	Coefficient of correlation
Intercept	530.06	1355.64	0.39	0.35	
INV	6.26	2.15	2.91	0.01	0.72
Standard error of estimate (SEE)				1,112.06	
Coefficient of determination (R-squared)				0.51	

Source: computed from annual reports of National Aluminium Company

Table 8 shows the impact of size of inventory on Gross Sales of NALCO. The result shows that one unit change in inventory increases sales by 6.26 units which is statistically significant at 5 percent level. The coefficient of correlation between both variables, Sales and Inventory are high degree of positive correlated of 0.72.

The independent variable explains 51 percent variation in gross sales of the company. The result rejects the null hypothesis and gives satisfactory outcome.

Table 9 Structure of Gross Working Capital in NALCO

Year	Inventories		Sundry Debtors		Cash And Bank Balance		Other Current Assets		Loans And Advances		CA/Gross Working Capital
2001	407.20	(38.85)	263.07	(25.10)	66.00	(6.30)	49.88	(4.76)	262.09	(25.00)	1048.24
2002	484.32	(42.54)	257.83	(22.65)	114.23	(10.03)	41.54	(3.65)	240.53	(21.13)	1138.45
2003	489.25	(48.61)	101.83	(10.12)	49.56	(4.92)	89.80	(8.92)	276.06	(27.43)	1006.50
2004	480.48	(48.51)	102.24	(10.32)	98.36	(9.93)	86.51	(8.73)	222.92	(22.51)	990.51
2005	529.06	(29.21)	92.81	(5.12)	755.21	(41.70)	82.01	(4.53)	351.95	(19.43)	1811.04
2006	591.58	(17.94)	29.42	(0.89)	2193.71	(66.52)	118.62	(3.60)	364.55	(11.05)	3297.88
2007	634.96	(12.77)	34.13	(0.69)	3686.53	(74.11)	212.04	(4.26)	406.42	(8.17)	4974.08
2008	686.65	(13.62)	60.65	(1.20)	3516.46	(69.75)	236.47	(4.69)	541.10	(10.73)	5041.33
2009	841.90	(18.59)	26.50	(0.59)	2869.04	(63.35)	175.35	(3.87)	616.02	(13.60)	4528.81
2010	944.92	(18.14)	181.78	(3.49)	3152.35	(60.51)	145.00	(2.78)	785.59	(15.08)	5209.64
Average	609.03	(28.88)	115.03	(8.02)	1650.15	(40.71)	123.72	(4.98)	406.72	(17.41)	2904.65

Source: computed from annual reports of National Aluminium Company

Note: Values in Brackets Show percentage in Total Current Assets

Table 9 shows the position of current assets in NALCO, i.e. Net Current Assets. During the whole study period cash balance keeps higher proportion than the other component of current assets with 40.71 percent.

Total Current Assets increased from Rs. 1048.24 Crore in 2001 to Rs. 5209.64 Crore, which shows five times increase. The lowest value of current assets is in the year 2004 when it is just Rs. 990.51 Crore and it is highest in the year 2010 at Rs. 5209.64 Crore.

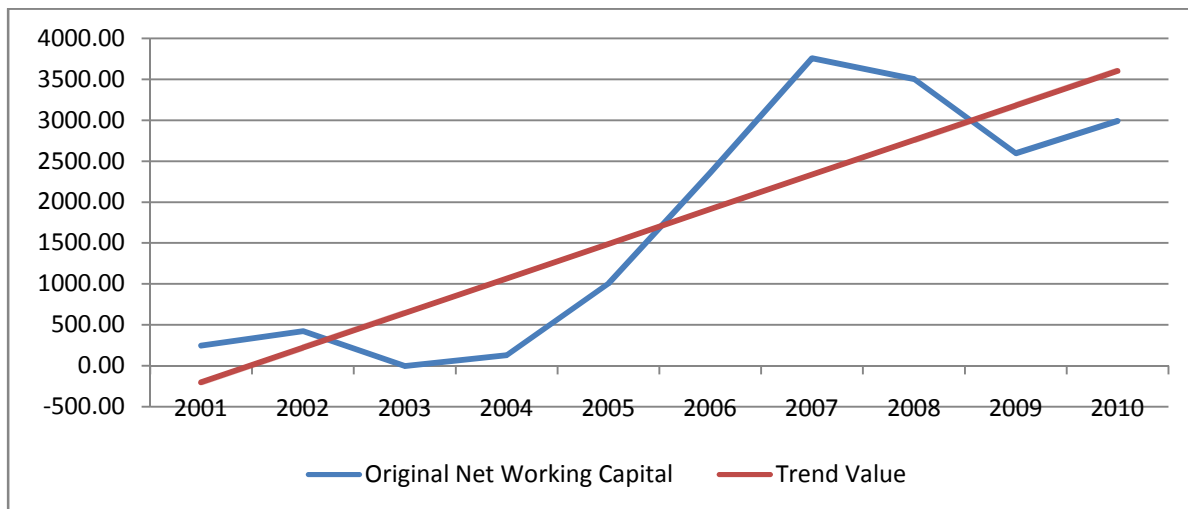
Trend of Working Capital

Working capital trends provide a base to judge whether the practice and prevailing policy of the management with regard to working capital is good enough or an improvement is to be made in managing the working capital funds.

The trend of working capital of National Aluminium Company is presented in table 10. It is evident from the table that the working capital of NALCO marked a fluctuating trend during the period under review. The net working capital of NALCO increased to Rs. 2989.71 Crore in 2010 from Rs. 243.23 in 2001. The linear least square trend values of working capital in NALCO are shown in table. The yearly increase in working capital comes to Rs. 422.55 Crore. The difference between actual and trend values are negative in the years 2003 to 2005 and 2009 to 2010 while they were positive in the remaining years.

Years	Working Capital	Trend Value	Difference
2001	243.23	-202.77	446.00
2002	419.25	219.79	199.46
2003	-5.10	642.34	-647.44
2004	126.23	1064.89	-938.66
2005	1004.65	1487.44	-482.79
2006	2357.73	1910.00	447.73
2007	3755.47	2332.55	1422.92
2008	3500.45	2755.10	745.35
2009	2595.57	3177.65	-582.08
2010	2989.71	3600.20	-610.49

Source: computed from annual reports of National Aluminium Company



From the figure1, it is easy to assess that working capital of NALCO decreased in 2003 and after that it increased till the year 2007 and again it decreased. It shows that company having big variation in working capital during the whole study period.

Financing of Working Capital

years	Gross Working Capital	Short Term Sources of Fund	Long Term Sources of Fund	% of Long Term Source
2001	1048.24	805.01	243.23	23.20
2002	1138.45	719.2	419.25	36.83
2003	1006.50	1011.6	-5.10	-0.51
2004	990.51	864.28	126.23	12.74
2005	1811.04	806.39	1004.65	55.47
2006	3297.88	940.15	2357.73	71.49
2007	4974.08	1218.61	3755.47	75.50
2008	5041.33	1540.88	3500.45	69.44
2009	4528.81	1933.24	2595.57	57.31
2010	5209.64	2219.93	2989.71	57.39

Source: computed from annual reports of National Aluminium Company

A business firm has various sources to meet its financial requirements. Normally, the current assets of a firm are supported by a combination of long – term and short – term sources of financing. In table 11, an attempt has been made to explain the relative importance of long – term and short – term debt in financing working capital. It is evident from the table that the percentage of the long – term funds used for financing the working capital has shown the fluctuating trend during the period under study. It increased from 23.20 percent in 2001 to 57.39 percent in 2010. During the study period, long term source for working capital has been fluctuating in nature, it was at peak during 2007, which was 75.50% and lowest during 2003 when it was completely financed by short term sources of fund.

Impact of Working Capital on Profitability

Year	CR	LR	WTR	ITR	RTR	CTR	WC/TA	PBT to TA
2001	1.30	0.80	9.29	5.55	8.59	34.23	0.06	0.19
2002	1.58	0.91	5.31	4.59	8.63	19.48	0.08	0.10
2003	0.99	0.51	-502.80	5.24	25.18	51.74	0.00	0.13
2004	1.15	0.59	24.67	6.48	30.46	31.66	0.02	4.66
2005	2.25	1.59	4.10	7.79	44.43	5.46	0.17	0.32
2006	3.51	2.88	2.06	8.20	164.92	2.21	0.38	0.39
2007	4.08	3.56	1.58	9.36	174.05	1.61	0.50	0.48
2008	3.27	2.83	1.43	7.27	82.26	1.42	0.37	0.26
2009	2.34	1.91	1.96	6.05	192.25	1.78	0.24	0.17
2010	2.35	1.92	1.69	5.35	27.81	1.60	0.24	0.09
Average	2.28	1.75	-45.07	6.59	75.86	15.12	0.21	0.68

Source: computed from annual reports of National Aluminium Company

CR – Current Ratio, LR – Liquid Ratio, WTR – Working Capital Ratio, ITR – Inventory Turnover Ratio, RTR – Receivables Turnover Ratio, CTR – Cash Turnover Ratio, WC/TA – Working Capital to Total Assets, PBT to TA – Profit before Tax to Total Assets.

In the judgment of the liquidity position and its impact on profitability, it is necessary to analyze the different working capital ratios as exhibit in the table 12. It appears from the table that current ratio of NALCO has moved between 0.99 to 4.08 during the period of the study. Conventionally, a standard of 2:1 is considered satisfactory. It is thus, discerned, that the liquidity of NALCO, as measured by current ratio is satisfactory. This signifies that the margin of safety available to short term creditors is relatively high i.e., for every rupee of current liability the cushion available is Rs. 1.28.

The liquid ratio of the NALCO has moved between 0.51 to 2.88 during the entire period of the study which is moderately good, as compared to the standard norm of 1:1, except in the years 2001 to 2004.

Table 13: Regression Analysis					
Variables	Coefficient	Std. Error	t-value	p-value	Coefficient of Correlation
Intercept	-1.7604	9.1113	0.1932	0.4323	
CR	-4.1282	8.6960	0.4747	0.3409	-0.31
LR	-6.7180	25.7663	0.2607	0.4093	-0.31
WTR	0.0062	0.0088	0.6984	0.2786	0.18
ITR	0.6886	1.2249	0.5622	0.3153	0.06
RTR	0.0036	0.0167	0.2176	0.4240	-0.16
CTR	0.0367	0.1095	0.3353	0.3846	0.28
WC/TA	-24.2074	145.5006	0.1664	0.4416	-0.31
Standard Error of Estimate (SEE)					1.9894
Coefficient of Determination (R-squared)					0.5543
(adjusted for degree of freedom)					0.0000

Table 13 shows the result of regression analysis of impact of working capital. The co – efficient of correlation between the profitability ratio and Current Ratio and Liquid Ratio of NALCO is -0.31. This indicates that there is low degree of negative correlation between these two variables.

The co – efficient of correlation between the two variables, the correlation between profitability ratio and working capital turnover, inventory turnover and cash turnover ratio indicates low degree of positive correlation of 0.18, 0.06 and 0.28 respectively, whereas the correlation between profitability ratio and receivables turnover ratio of -0.16 and working capital to total assets of -0.31 indicate low degree negative co – efficient correlation. Thus, the correlation analysis show that CR, LR, RTR, and WC/TA have shown negative correlation with profitability ratio and WTR, ITR and CTR have shown positive correlation with profitability ratio.

The impact of working capital ratios on profitability of NALCO are shown with the help of multiple regression analysis. Table shows that one unit increase in current ratio decreases 4.1282 units of profitability, one unit increase in liquid ratio decreases 6.718 units and one unit increase in working capital to total assets decreases 24.2074 units, whereas one unit increase in working capital increases 0.0062 unit, one unit increase in inventory turnover ratio increases 0.6886 unit, one unit increase in receivables turnover ratio increases 0.0036 unit and one unit increase in cash turnover ratio increases 0.0367 unit of profitability ratio.

From the table it is found that no variable is statistically significant at 5 percent level. The independent variables explain 55 percent of the variations in the profitability of the NALCO. Thus, the overall results presented in the table are not satisfactory and it is proved that there is no impact of working capital on the profitability.

Summary of findings & Suggestions

Cash Management: In the first four year of the study period, the cash and bank balance of the company is lower than the total operating expenses, but from the year 2005 it keeps bigger volume than operating expenses. The average cash and bank balance of the company is more than double of average total operating expenses. Study depicts that most of the time cash balance shows good position of the company to meet its operating expenses. The regression analysis between these two variables has given satisfactory result as the co efficient of correlation between Cash and Bank Balance and Total Operating Expenses show high degree of co-relation of 0.81 and it is statistically significant at 5 percent level.

Receivable Management: in the company, total size of receivables is fluctuated throughout the study period. The debt over six month has reduced to one fifth (1/5 approx.) of the debts over six month from starting of the study to end of the study period, which shows company rigid credit policy, although, provision for doubtful debts has been maintained around its average throughout the study period. Total receivables reduced to Rs.181.78 Crore in 2010 from Rs.263.07 Crore in 2001. Reduction in receivables shows the rigid credit policy of the company. The regression analysis does not show the satisfactory result, as the result shows moderate degree of correlation of 0.42 between these two variables and also shows that it is not statistically significant at 5 percent level.

Inventory Management: Study shows small movement in the size of total inventory at an average of 10 percent increase every year. The biggest proportion is retained in the form of store and spares etc. Trend of sales is also similar as inventory. The average increase in sales is also 10 percent every year. It is found from the regression analysis that Sales and Inventory are highly correlated positively of 0.72 and the result is statistically significant at 5 percent level. The result of inventory management is satisfactory.

Working Capital Management: From the study, it is revealed that company has maintained big portion of cash and bank of 40.71 percent which is higher than the normal size. Usually, it is found that inventory keeps the larger proportion in the total current assets, which is near about half of the total assets, but in NALCO average inventory is just 28.88 percent. In the first five years of the study it is 41.54 percent but it is just 16.21 percent in the last five year, this is not an ideal feature of size of inventory. Trend of the working capital shows fluctuating in nature. There is no consistency in growth of the working capital. Such type of fluctuation is not good for company. After the year 2004, bigger portion of gross working capital is financed by long term sources of fund, which is less risky approach of financing of working capital. Only in the year 2003, the whole working capital is financed by the short term sources of fund.

Impact of working Capital: From the study it is found that NALCO's current ratio and liquid ratio is higher than the standard size, which shows company's strong liquidity position. Other turnover ratios show the satisfactory result, but when the impact of all ratios on the profitability is tested through correlation and regression analysis, it is found that no variable is statistically significant. The analysis does not give satisfactory result.

Suggestions

- i. Size of cash is bigger as it should be near about 25 percent of total current assets. Therefore, company should hold only the required amount of cash, because useless cash reduces opportunity costs.
- ii. NALCO creates provision for doubtful debts higher than the required size, which is charged from the gross profit of the company. Therefore company should reduce its charge up to the required size.
- iii. NALCO should increase size of inventory, because company keeps less size of inventory as its standard size should be half of the total current assets.
- iv. Company uses long term source for financing working capital, this may be reason behind the insignificant result of impact of working capital on the profitability. Therefore company should use short term source of financing working capital.

Materialization of the above suggestions is expected to increase the profitability by maintaining appropriate capital structure and leverage thereupon. The suggestions and recommendations will also ensure proper inventory level, cash level and efficient working capital.

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