

A Study on Working Capital Management with Special Reference to Select Pharmaceutical Companies in India

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Abstract:

Working capital is a vital measure to assess a company's fitness. Some time profitable companies can turn insolvent if they fail to manage working capital properly. Working capital determines the sources which are needed for running the business smoothly. It is inferred that the short-term liquidity position of a company at a point of time. The researcher analyzed various ratios such as current ratio, quick ratio, debtors' turnover ratio, stock turnover ratio etc.,. The study period covers about ten years from 2010 to 2020. The researcher has taken ten pharmaceutical companies as sample size for analysis. The results show that the working capital managed by selected company throughout the period is good and sufficient.

Keywords: Working Capital Management, Pharmaceutical Industry, Current Assets.

I. INTRODUCTION

Those receipts and payments which are used for running business less than one year are called working capital. That is the difference between current assets and current liabilities. Current assets refer to closing stock, amount not yet received from customer on credit and cash available within hand and at bank. On the other part of side current liabilities refers to short-term debt, goods purchased from creditors on credit, outstanding dues and bank overdraft and other short-term debts.

The result of working capital of a company should be positive. If the company with negative working capital i.e. current liabilities exceed of current asset are leveled to financial risk and should be carefully analyzed. The few factors which are influencing working capital requirement like nature and size of business, seasonal variations in sales, change input and length of cycle etc.,

Pharmaceutical Industry in India

India is the largest provider in generic drugs globally. Indian pharmaceutical sector industry provisions over fifty percent of global demand for various vaccines, forty percent of generic demand in this US and twenty five percent of all medicines in UK.

India has a dominant position in pharmaceutical sector globally. The country also has a large pool of engineers and scientists who have possible to push this industry in high level in upcoming year also.

II. REVIEW OF LITERATURE

Pavithra.K, S.Karthik, and S. Umamaheswari (2016)¹ have titled on comparative study on working capital management in India. Data are used for the study secondary in nature. Ten pharmaceutical companies are selected as sample from 2009-10 to 2019-20. It is inferred from their study all selected

companies are managed working capital effectively and efficiently throughout the study period and it is satisfactory.

Mobeen Ur Rehman and Naveed Anjum (2013)² empirically analyzed the effects of working capital management on the profitability of Pakistan cement industry. The secondary data are used from Annual report and the sample size is 10 consisting of Pakistan cement companies listed in KSE from 2003-2008. The relationship between working capital management and profitability was analyzed by selected statistical tools. There is positive relationship between working capital management and profitability of selected cement industry in Pakistan.

Kulkanya Napompech (2012)³ examined the impact of working capital management on profitability. The main objective of this study is to test the effects of working capital management on profitability. The regression analysis was calculated on a sample of 255 companies listed in the Stock Exchange of Thailand from 2007 to 2009. Therefore, There is an inverse relationship between the operating profit and inventory conversion period and the receivable collection period. However, there were no effects on profitability by extending the payables deferral period. The findings also confirmed that industry characteristics have an impact on gross operating profits.

Manoj Anand and Kesav (2011)⁴ have entitled on Working capital performance of corporate India. The researcher has selected and analysed top 25 companies during the period 2003-2004. The study concluded that there is relationships between the working capital management and firm profitability on an aggregate basis and have a significant negative relationship between the cash flow from operating activities and average days of account variable.

III. STATEMENT OF THE PROBLEM

Working Capital Management is life blood of any organization. Working capital positions are good measure to test whether a company will be able to comfortably continue as a going concern. Working capital should be maintained for smooth running of the business given optimal amounts of cash, accounts receivable and inventories that a firm should choose to maintain.

IV. OBJECTIVES OF THE STUDY

- ❖ To study the working capital policy of the select pharmaceutical companies in india.
- ❖ To analyze the position of working capital among the selected pharmaceutical companies.
- ❖ To offer suggestion and conclusion of the study.

V. RESEARCH METHODOLOGY

Research Design

The research study is analytical in nature. It has been used for analyzing the working capital of the pharmaceutical company. In this study, the researcher has used secondary data which availed in Centre for Monitoring Indian Economy (CMIE).

Selection of Sample

The ten pharmaceutical companies have been selected for the study for the period of ten years and the period starts from 2010 to 2020 based on high sales turnover. Based on the criteria listed companies were listed below;

C1 - Dr. Reddy's Laboratories	C6 –
Cadilla Healthcare	
C2 - Cipla Ltd	C7 –
Jubilant Life Sciences	
C3 - Lupin Ltd	C8 -
Glaxo Smith Kline Pharmaceutical	
C4 – Aurobindo Pharma	C9 –
Davis Laboratories	

C5 – Sun Pharmaceuticals
– Glenmark Pharma

C10

Tools of Analysis

Following tools are applied for the study:

- Ratio analysis
- Anova
- Mean
- Standard Deviation
- Co- efficient of Variation

Period of Study

The period of study ten years from 2010-11 to 2019-20. The financial year starts from 1st April 2010 to 31st March 2020.

VI. ANALYSIS AND INTERPRETATION

Table. 1 Current Assets to Total Assets Ratio

YEAR	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
2010-11	0.47	0.97	0.78	0.64	0.41	0.46	1.69	1.51	0.71	0.74
2011-12	0.49	1.00	0.72	0.61	0.6	0.47	1.72	1.6	0.77	0.81
2012-13	0.56	0.93	0.84	0.65	0.7	0.54	1.75	1.47	0.72	0.81
2013-14	0.58	0.84	0.84	0.6	0.7	0.62	2.93	0.4	0.62	0.77
2014-15	0.55	0.87	0.76	0.68	0.65	0.55	2.78	0.89	0.6	0.73
2015-16	0.61	0.79	0.78	0.76	0.53	0.49	2.84	1.19	0.6	0.93
2016-17	0.51	0.73	0.67	0.69	0.28	0.53	2.37	1.26	0.52	0.61
2017-18	0.61	0.61	0.58	0.68	0.43	0.56	2.7	1.16	0.54	0.15
2018-19	0.56	0.55	0.62	0.68	0.39	0.55	2.41	1.13	0.56	0.27
2019-20	0.73	0.47	0.67	0.69	0.37	0.51	2.13	1.14	0.56	0.33
Mean	0.56	0.78	0.72	0.66	0.5	0.52	2.33	1.18	0.62	0.61
SD	0.07	0.18	0.09	0.05	0.15	0.04	0.48	0.34	0.08	0.26
CV (%)	12.74	23.25	12.55	6.85	30.05	9.15	20.76	29.07	13.59	43.54

(SD- Standard deviation, CV – Co-efficient of Variation)

The above shows that mean value is found higher in Jubilant Life Sciences (C7) at 2.33 indicates that the company has an excessive investment in current assets. The lower mean value is Sun Pharmaceuticals (C5) at 0.50 shows that the company's current asset maintenance is low. In Aurobindo Pharma (C4) the co-efficient of variation is found with the high level of consistency and low level of consistency is noticed in Glenmark Pharma (C10).

Table. 2 Current Asset to Net Fixed Assets Ratio

YEAR	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
2010-11	2.17	2.62	1.25	1.92	1.3	0.67	0.86	6.09	1.27	1.88
2011-12	2.04	2.37	1.21	1.7	3.97	0.68	0.94	7.26	1.5	2.82
2012-13	3.16	2.17	2.05	1.9	4.21	0.92	1.18	5.19	1.65	3.37
2013-14	3.99	2.04	2.07	2.46	4.18	1.11	1.04	3.7	1.13	3.79
2014-15	2.91	2.25	2.00	2.46	4.45	1.25	1.19	6.94	1.17	3.09
2015-16	2.95	2.12	1.85	3	3.92	1.21	0.97	3.98	1.34	12.3
2016-17	2.53	2.16	1.94	2.58	2.14	1.25	1.21	4.61	1.41	8.07
2017-18	2.7	1.51	1.79	2.46	3.61	1.44	1.23	7.34	1.71	2.16
2018-19	2.45	1.4	1.77	2.05	3.2	1.64	1.01	7.43	1.73	3.29

2019-20	2.85	1.39	1.86	1.96	2.59	1.54	0.97	5.66	1.61	3.77
Mean	2.77	2	1.77	2.24	3.35	1.17	1.06	5.81	1.45	4.45
SD	0.55	0.43	0.31	0.4	1.04	0.33	0.13	1.42	0.22	3.24
CV (%)	19.87	21.23	17.29	17.93	30.9	28.65	12.4	24.34	15.22	72.74

(SD- Standard deviation, CV – Co-efficient of Variation)

The table shows that mean value is higher in Glaxo Smith Kline Pharmaceuticals (C8) at 5.81. It indicates more funds are locked up in the current asset which leads to reduction in profitability. The Mean value is lower in Jubilant Life Sciences (C7) at 1.06. In Jubilant Life Sciences (C7) the co-efficient of variation is found with the high level of consistency and low level of consistency is noticed in Glenmark Pharma (C10).

Table. 3 Current Asset to Operating Income Ratio

Year	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
2010-11	2.87	3.2	2.82	3.89	1.5	2.45	2.47	2.84	1.78	3.52
2011-12	7.05	3.01	4.62	8.14	4.77	2.44	2.76	2.22	2.23	4.97
2012-13	5.59	2.84	4.37	7.52	4.18	2.64	3.47	2.33	2.79	7.08
2013-14	2.05	3.07	3.07	6.3	3.54	3.18	3.08	0.69	1.66	4.49
2014-15	4.94	3.85	2.67	6.42	2.52	3.59	2.48	1.7	1.35	2.25
2015-16	4.71	3.82	3.11	5.06	2.02	4.06	2.54	2.68	1.54	5.9
2016-17	3.06	2.87	2.83	3.56	1.55	10.3	3.4	2.85	1.88	6.35
2017-18	3.74	3.06	2.48	3.43	1.89	5.95	4.17	4.05	1.89	1.35
2018-19	2.5	2.44	2.59	5.37	1.73	2.95	4.93	2.97	1.67	2.01
2019-20	3.42	2.02	1.96	4.11	3.93	3.27	4.66	3.46	1.68	2.32
Mean	3.99	3.01	3.05	5.37	2.76	4.08	3.39	2.57	1.84	4.02
SD	1.55	0.55	0.83	1.67	1.22	2.42	0.91	0.93	0.4	2.03
CV (%)	39	18.34	27.13	31.1	44.3	59.4	26.8	36.1	21.88	50.3

(SD- Standard deviation, CV – Co-efficient of Variation)

This table shows that mean value is higher in Aurobindo Pharma (C4) at 5.37. It indicates the inefficiency usage of the funds. The lower mean value is Divis Laboratories (C9) at 1.84 shows efficient utilization of funds. In Cipla Ltd (C2) co-efficient of variation is found high level and low level of consistency is noticed in Cadila Healthcare (C6).

Table. 4 Net Working Capital to Operating Income Ratio

Year	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
2010-11	1.84	2.37	1.96	2.98	1.14	0.76	1.05	2.39	1.34	2.68
2011-12	4.28	2.16	2.98	5.95	4.4	0.83	1.13	1.84	1.68	4.39
2012-13	3.62	2.05	3.37	5.43	3.87	1.26	2.05	2.01	1.88	6.17
2013-14	1.5	2.5	2.33	4.83	2.84	1.21	1.71	0.39	1.18	3.7
2014-15	3.59	2.96	1.99	4.83	1.87	2.04	1.58	1.37	0.98	1.72
2015-16	3.18	2.91	1.78	3.91	1.6	2.25	1.42	2.28	1.23	5.28
2016-17	1.64	2.21	2.08	2.61	1.3	5.7	1.96	2.45	1.51	5.56
2017-18	2.46	2.38	1.8	2.48	1.69	1.86	2.44	3.62	1.47	0.77
2018-19	1.68	1.91	1.87	3.5	1.48	1.64	2.24	2.6	1.29	1.13
2019-20	2.33	1.57	1.45	3.03	3.25	2.16	1.03	2.97	1.35	0.99
Mean	2.61	2.3	2.16	3.95	2.34	1.97	1.66	2.19	1.39	3.24

SD	0.99	0.42	0.58	1.23	1.16	1.41	0.5	0.88	0.25	2.05
CV (%)	37.9	18.48	27.14	31.2	49.6	71.7	30.6	40.3	18.52	63.4

(SD- Standard deviation, CV – Co-efficient of Variation)

The above table shows that mean value of net working capital to operating ratio is higher in Aurobindo Pharma (C4) at 3.95. It indicates an excessive that working capital and shows the inefficiency in managing its utilization which increases the cost of financing net working capital. The lower mean value is Divis Laboratories (C9) at 1.39, shows an efficient utilization of working capital. In Cipla Ltd (C2) co-efficient of variation is found with the high level consistency and low level consistency is noticed in Glenmark Pharma (C10).

Table. 5 Working Capital To Current Asset Ratio

YEAR	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10
2010-11	0.64	0.74	0.7	0.76	0.76	0.32	0.42	0.84	0.75	0.76
2011-12	0.61	0.72	0.64	0.73	0.92	0.34	0.41	0.83	0.75	0.88
2012-13	0.65	0.72	0.77	0.72	0.93	0.48	0.59	0.86	0.68	0.87
2013-14	0.73	0.81	0.76	0.77	0.8	0.38	0.55	0.56	0.71	0.82
2014-15	0.73	0.77	0.75	0.75	0.74	0.57	0.64	0.8	0.73	0.76
2015-16	0.67	0.76	0.57	0.77	0.79	0.55	0.56	0.85	0.79	0.89
2016-17	0.54	0.77	0.74	0.73	0.83	0.55	0.58	0.86	0.8	0.88
2017-18	0.66	0.78	0.73	0.72	0.89	0.56	0.59	0.89	0.78	0.57
2018-19	0.67	0.78	0.72	0.65	0.85	0.56	0.46	0.87	0.77	0.56
2019-20	0.68	0.77	0.74	0.74	0.83	0.66	0.22	0.86	0.79	0.43
Mean	0.66	0.76	0.71	0.74	0.84	0.5	0.52	0.82	0.76	0.74
SD	0.05	0.02	0.06	0.03	0.06	0.11	0.12	0.09	0.04	0.16
CV (%)	8.6	3.83	8.53	4.68	7.61	22.9	25	11.6	5.61	22.2

(SD- Standard deviation, CV – Co-efficient of Variation)

The table shows mean value is higher in Sun Pharmaceuticals (C5) at 0.84. It indicates the working capital position is good. The mean value is lower in Cadila Healthcare (C6) at 0.50. In Cipla Ltd (C2) the co-efficient of variation is found with the high level consistency and low level consistency is noticed in Cadila Healthcare (C6).

Table 6. Anova for Current Asset to Total Asset Ratio

Hypothesis

There is no significant mean difference in current asset to total asset ratio among the select pharmaceutical companies.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean sum of Square	F Value	S / N S
Between Groups	3.889	9	.432	15.401	S
Within Groups	2.525	90	.028		
Total	6.414	99			

(1 % level of significance) (S – Significant, NS – Not Significant)

The calculated F value is 15.401, table value at 1 % level of significance, when degrees of freedom is 9,2.611. The calculated F value is

more than the table value; hence the null hypothesis is rejected. There is a significant mean difference in current asset to total asset ratio among the select pharmaceutical companies.

Table 7. Anova for Current Assets to Net Fixed Asset Ratio

Hypothesis

There is no significant mean difference in current asset to net fixed asset ratio among the select pharmaceutical companies.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean sum of Square	F Value	S / NS
Between Groups	11562.294	9	1284.699	.709	NS
Within Groups	163058.407	90	1811.760		
Total	174620.701	99			

(5 % level of significance) (S – Significant, NS – Not Significant)

The calculated F value is 0.709, table value at 5 % level of significance, when the degrees of freedom is 9, 1.986. The calculated F value is less than the table value; hence the null hypothesis is accepted. There is no significant mean difference in current asset to net fixed asset ratio among the select pharmaceutical companies.

Table 8. Anova for Current Asset to Operating Income Ratio

Hypothesis

There is no significant mean difference in current asset to operating income ratio among the select pharmaceutical companies.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean sum of Square	F Value	S / NS
Between Groups	88.824	9	9.869	5.047	S
Within Groups	176.005	90	1.956		
Total	264.829	99			

(1 % level of significance)

(S – Significant, NS – Not Significant)

The calculated F value is 15.401, table value at 1 % level of significance, when the degrees of freedom is 9, 2.611. The calculated F value is more than the table value; hence the null hypothesis is rejected. There is a significant mean difference in current asset to operating income ratio among the select pharmaceutical companies.

Table 9. Anova for Net Working Capital to Operating Income Ratio

Hypothesis

There is no significant mean difference in net working capital to operating income ratio among the select pharmaceutical companies.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean sum of Square	F Value	S / NS
Between Groups	50.223	9	5.580	4.773	S
Within Groups	105.224	90	1.169		
Total	155.447	99			

(1 % level of significance) (S – Significant, NS – Not Significant)

The calculated F value is 4.773, table value at 1 % level of significance, when the degrees of freedom is 9, 2.611. The calculated F value is more than the table value, hence the null hypothesis rejected. There is a significant mean

difference net working capital to operating income ratio among the select pharmaceutical companies.

Table 10. Anova for Working Capital to Current Asset Ratio

Hypothesis

There is no significant mean difference in working capital to current asset ratio among the select pharmaceutical companies.

Source of Variation	Sum of Squares	Degrees of Freedom	Mean sum of Squares	F Value	S / N
Between Groups	1.266	9	.141	17.615	S
Within Groups	.719	90	.008		
Total	1.985	99			

(1 % level of significance) (S – Significant, NS – Not Significant)

The calculated F value is 17.615, table value at 1 % level of significance, when the degrees of freedom is 9, 2.611. The calculated F value is more than the table value; hence the null hypothesis is rejected. There is a significant mean difference in working capital to current asset ratio among the select pharmaceutical companies.

VII. SUGGESTIONS

- The pharmaceutical companies should increase the sales to generate revenues.
- Investment in fixed assets and current assets should be effectively utilize and earn more profits.
- The pharmaceutical companies should increase the current assets and decrease the current liabilities to improve short term solvency position.

- The pharmaceutical company must take necessary steps to accelerate the collection of money from debtors.

VIII. CONCLUSION

The survival and growth of every business based on the effective utilization of the working capital. The management of working capital constitutes the major role of the overall financial management. Working capital management is also important part of the Pharmaceutical Industry as it has a direct impact on meeting day-to-day expenses. Based on the ratio analysis, it is inferred that “Jubilant Life Sciences, Sun Pharmaceuticals”, has the better working capital managements. Further, it is observed that the total assets, fixed assets, sales and profit significantly influence the working capital.

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