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# NEGATIVE WORKING CAPITAL AND ITS IMPACT ON PROFITABILITY

*“A Case Study of Hindustan Unilever”*

## Introduction

The management of Working Capital is one of the most important and challenging aspect of the overall financial management. Only more effective and efficient management of working capital can ensure survival of a business enterprise. Working Capital Management is concerned with the management of the Current Assets and Current Liabilities and the interrelation that exists between them, so to minimize the risk of insolvency and to maximize the return on assets. The ultimate objective of working capital management is to ensure that a firm is able to continue its operations and that it has sufficient ability to satisfy both maturing short term debt and upcoming operational expenses. Working capital management calls for addressing two basic issues how much of current assets an organization should hold and how to finance the investment in them. It is observed that organizations which could tackle these two issues reasonably are able to combat liquidity and its related problems comparatively more efficiently.

However, a great deal of controversy exists over the issue whether the working capital of a firm, as determined by its financing and investment decisions, affects its profitability or not. On this issue academicians are sharply divided into two schools of thought (Mallik et al., 2005). One school of thought argues that working capital is not a factor of improving profitability rather it may be negatively associated with earning capability. The other school of thought opines that investment in working capital plays a vital role in enhancing corporate profitability and unless there is a minimum level of investment of working capital, output and sales cannot be maintained. They argue that inadequacy of working capital keeps fixed asset inoperative.

In the present scenario some companies are using negative working capital and getting a good amount of profits and good return on capital also Hindustan Unilever is one of them. Earlier negative working capital is considered as a risk of insolvency of the organizations but

at present negative working capital is a sign of managerial efficiency in a business. Earlier it was considered that the companies should avoid under-investment in working capital if they wanted higher profits margins as stated in the following studies.

Chakraborty (1976) evaluated the association between working capital turnover and profitability in Indian cement, sugar and fertilizer industries and found a positive relationship between them.

Saha (1987) made an attempt to assess the relationship between profitability crisis and working capital management in the Indian public sector. The study concluded that the profitability of the selected public enterprises suffered due to inefficient management of working capital.

Jain (1988) considered 10 manufacturing, trading and service industries from the state of Rajasthan in his study and concluded that the companies should avoid under-investment in working capital if they wanted higher profit margins.

All the above studies are very important for the present study because all studies focuses on the sufficient positive working capital in the organizations. But in the present studies there is an attempt to prove that a company with the negative working capital can also do well and it doesn't adversely affects the profitability as stated by Jain (1988) above.

## Research Gap

Though there are too many researches has been conducted on the topic working capital management and its impact on profitability, but there is no major research has been done for the negative working capital and its impact on profitability. All the studies on working capital generally states that for the improvement in profitability we should manage our working capital effectively and most of the studies recommended to have good amount of working capital in the organization. As the above stated researches concludes that the companies should avoid under-investment in working capital if they wanted higher profit margins, with this paper there is an

attempt to study the profitability of an organization which generally operates in the negative working capital zone. Does it have any negative impact on the profitability or on the Sales? This is a very crucial topic because liquidity and solvency are directly related to each other. With negative working capital there can be a danger of insolvency but it is not true forever. If the company is having a good image in the market and good relation with their creditors it can get the benefit from the negative working capital also.

## Objectives

The basic objective of the study is to analyze and evaluate the impact of negative working capital on the profitability of the organization. The secondary objective is to know the answer of the question that the companies should avoid under-investment in working capital if they wanted higher profit margins as stated by the several researchers is essential for all the organization.

## Research Methodology

The present study is basically based on the secondary data. The data for the study has been taken from the published annual reports of Hindustan Unilever. The study covers a period of 5 years viz, 2007–08 to 2011–12. For the purpose of analysis the data, both financial tools as well as statistical techniques have been used. The ratios relating to working capital management, which have been used in this study, are: Current Ratio, Liquidity Ratio, Inventory turnover ratio, Debtor turnover ratio. For the profitability measure I have taken Profit Before Interest and Tax Margin, Return on capital Employed, Net

Profit Margin. The degree of relationship between working capital components and profitability has been assessed through correlation coefficient analysis and for testing its significance t-test has been used.

## Analysis and Discussion

The present study analysis is arranged in the following four parts as given below:-

1. Structural Analysis of components of working capital in absolute and relative terms
2. Ratio Analysis
3. Compound Annualized Growth Rate Analysis
4. Correlation Analysis

### 1. Structural Analysis

The structural analysis includes the study of the components of the working capital in Hindustan Unilever. It includes inventory, receivables, cash and bank, loans and advances fixed deposits and current liabilities and provisions. The analysis is given below-

- **Net Working Capital:** The Net working capital in HUL (as shown in Table-1) is not having a certain trend. In the year 2007–08 it was(1621.2 ) crores and it become positive in the year 2008–09 and reach to 71.99 crores and after this it remains negative for all the years. On an average it stood (1010.96) crores with a high standard deviation of 640.99 and a high negative coefficient of variation of 63.40%. It shows that the company normally uses negative working capital in its operation.

**Table 1: Working Capital Structure (in Rs. Cr.) HINDUSTAN UNILEVER**

Year	Inventory	% in GWC	Receivables	% in GWC	Cash & Bank	% in GWC	Loan & Advances	% in GWC	Fixed Deposits	% in GWC	GWC	C.L.& Prov.	NWC
2007-08	1953.60	53.07	443.37	12.044	200.11	5.44	1083.28	29.43	0.75	0.02	3681.11	5302.31	-1621.20
2008-09	2528.86	41.87	536.89	8.8888	190.59	3.16	1196.95	19.82	1586.76	26.27	6040.05	5968.06	71.99
2009-10	2179.93	37.46	678.44	11.659	231.37	3.98	1068.31	18.36	1660.84	28.54	5818.89	6935.52	-1116.63
2010-11	2811.26	43.29	943.20	14.524	281.91	4.34	1099.72	16.93	1358.10	20.91	6494.19	7589.19	-1095.00
2011-12	2516.65	39.69	678.99	10.709	510.05	8.04	1314.72	20.74	1319.99	20.82	6340.40	7634.36	-1293.96
Total	11990.30		3280.89		1414.03		5762.98		5926.44		28374.64	33429.44	-5054.80
Average	2398.06	43.08	656.18	11.57	282.81	4.99	1152.60	21.05	1185.29	19.31	5674.93	6685.89	-1010.96
S.D	334.30		189.02		131.94		103.63		677.95		1144.92	1025.60	640.99
C.V. %	13.94		28.81		46.65		8.99		57.20		20.18	15.34	-63.40

- **Inventories:** There is no certain trend measured in the inventory of the company (as shown in Table-1). In the year 2008–09 it has increased to 2528.86crores as compare to 1953.60crores in 2007–08. Then it decrease to 2179.93crores in the year 2009–10 and again it increase to 2811.26crore in the year 2010–11 and then it decrease to 2516.65crores in 2011–12. Overall average of the inventory during the period

of study was 2398.06crores with a high standard deviation of 334.30 with a low coefficient of variation of 13.94%. It constitutes a high average of 43.08% of gross working capital which is the highest component in gross working capital. In absolute terms (in terms of sale) it is showing a decreasing trend except for the year 2010–11 there is a slightly increase measured for the year.

- **Receivables:** There is an Increasing trend except in the year 2011–12 (as shown in Table–1). It increased to 536.89crore in the year 2008–09 from 443.37crores in the year 2007–08 and for the year 2009–10 it increased to 678.44crores and further increase thereafter to 943.20crores in 2010–11 and then decrease to 678.99crores in 2011–2012. On an average it is 656.18crores with a standard deviation of 189.02 and a coefficient of variation of 28.81%. It constitutes an average of 11.57% of gross working capital.
- **Cash and Bank balance:** There is an increasing trend except for the year 2008–09 (as shown in Table–1). It decreased from 200.11crores to 190.59crores in 2008–09 after this it start increasing and reaches to 231.37crores in 2009–10 to 281.91crores in 2010–11 to 510.05crores in 2011–12 with an overall average of 282.81crores with a standard deviation of 131.94 and with a coefficient of deviation of 46.65%. It constitutes only an average of 4.99% of gross working capital.
- **Loans and Advances:** It has an increasing trend with an exception in the year 2009–10 (as shown in Table–1). It increased to 1196.95crores in the comparison of 1083.28crores in 2008–09 and then it decreased to 1068.31crore in 2009–10 and then it increased to 1099.72crores in 2010–11 and to 1314.72crores in 2011–12. On an average it is 1152.60crores with a standard deviation of 103.63 and a very low coefficient of variation of 8.99%. It constitutes an average of 21.05% of gross working capital which is the second highest component in gross working capital.
- **Fixed Deposits:** In the initial three years it shows a increasing tendency and after three years it starts decreasing (as shown in Table–1). It increase to 1586.76crores in 2008–09 from 0.75crores in 2007–

08 and increases to 1660.84crores in 2009–10 and then decrease to 1358.10crores in 2010–11 and then decreases to 1319.99crores in 2011–12. On an average it is 1185.29crore with a high standard deviation of 677.95 and a high coefficient of variation of 57.20%. It constitutes an average of 19.31% of gross working capital.

- **Current Liabilities and Provisions:** It has an increasing trend throughout the period of study (as shown in Table–1). From 5302.31crores in 2007–08 it increased to 5968.06crores in 2008–09 to 6935.52crores in 2009–10 to 7589.19crores in 2010–2011 to 7634.36crores in 2011–12. On an average it is 6685.89crore with a very high standard deviation of 1025.60 and a coefficient of variation 15.34%. It shows a compound annual growth rate of 9.54% during the period of study. In absolute terms (in terms of sale) there is no certain trend overall it is around 36% of the sale price.

## 2. Ratio Analysis

The various ratios are used in the study it includes inventory turnover ratio, inventory conversion period, debtor turnover ratio, debtor collection period, current ratio, quick ratio, working capital turnover ratio, return on total assets, profit before tax ratio.

- **Inventory turnover and conversion period:** A low inventory turnover ratio results in blocking of funds in inventory which may ultimately result in heavy losses. In the present study (as shown in table–2) the average inventory turnover ratio is 8.66times with a low standard deviation of 1.09 and low coefficient of variation of 12.61. The average inventory conversion period is 42.72 days.

Table 2: Ratio Analyses of HINDUSTAN UNILEVER

year	ITR times	ICP Days	DTR times	DCP Days	CR	QR	ROCE in %	PBITM in %	WCTR	N.P. Margin in %	Net Sales	NWC	N.P.	No. of Days in working capital	Operating profit
2007–08	7.20	50.69	31.41	11.62	0.68	0.25	138.72	13.78	-8.56	12.58	13880.56	-1621.2	1769.06	-42.05	2076.43
2008–09	9.26	39.42	41.83	8.73	0.92	0.51	118.59	13.39	284.82	12.09	20504.28	71.99	2500.71	1.58	2964.94
2009–10	8.99	40.60	29.24	12.48	0.84	0.46	106.78	14.59	-15.91	12.29	17769.12	-1116.63	2202.03	-22.62	2797.70
2010–11	7.91	46.14	24.28	15.03	0.86	0.43	102.47	12.25	-17.98	11.56	19689.91	-1095	2305.97	-20.02	2664.49
2011–12	9.93	36.76	27.27	13.38	0.83	0.45	93.08	13.94	-17.09	12.07	22118.64	-1293.96	2691.40	-21.06	3325.20
Average	8.66	42.72	30.81	12.25	0.83	0.42	111.93	13.59	45.05	12.12	18792.50	-1010.96	2293.83	-20.83	2765.75
S.D.	1.09	5.62	6.70	2.34	0.09	0.10	17.56	0.87	134.09	0.37	3161.22	640.99	348.14	15.46	458.01
C.V. %	12.62	13.15	21.74	19.10	10.75	23.69	15.69	6.37	297.61	3.08	16.82	-63.40	15.18	-74.22	16.56

- **Debtor turnover ratio and debt collection period:** Higher the debtor turnover ratio, the better it is, since it would indicate that debts are being collected more promptly. In the present study (as shown in table–2) it is not having any certain tendency of DTR. Overall it is having an average of 30.81times with a very low standard deviation of 6.70 with coefficient of variation

of 21.74%. For debt collection period we know that an increase in period will result in greater blockage of funds in debtors. In the present study the average is 12.25 days i.e. the company recovers from his debtors within 13 days.

- **Current ratio:** The ideal current ratio is 2:1. In the present study it is always below this level with an

average of only 0.83 with a very low standard deviation of 0.09 and a coefficient of variation of 10.75% (as shown in table-2).

- **Quick ratio:** The ideal ratio is 1:1. In the present study it is always below this level with an average of only 0.42 with a very low standard deviation of 0.10 and a coefficient of variation of 23.69% (as shown in table-2).
- **Working capital turnover ratio:** A high working capital turnover is considered good as it indicates that the company is generating good sales compared to the funds invested in operations, i.e., the company is very efficient. A working capital turnover ratio of 6 indicates that the company is generating Rs.6 for every Rs.1 of working capital. Generally a high ratio indicates efficient utilization of working capital. In the present study for the 4 years out of 5 it is negative with an overall average of 45.05 and a standard deviation of 134.09 and a very high coefficient of variation of 297.61% (as shown in Table-2).
- **Return on capital employed:** Return on capital employed indicates the percentage of return on capital employed in the business and it can be used to show the overall profitability and efficiency of the business. In the present study it has a decreasing trend throughout the period of study (as shown in table-2). It has an overall average of 111.93 with a low standard deviation of 17.56 and a low coefficient of deviation of 15.69%.
- **Profit before interest and tax margin:** This indicator gives information on a company's earnings ability. PBIT margin is most useful when compared against other companies in the same industry. The higher EBIT margin reflects the more efficient cost management or the more profitable business. In the present study it has no uniform trend (as shown in Table-2). It decreased to 13.39% in 2008-09 from 13.78% in 2007-08 then increased to 14.59% in 2009-10 and thereafter decreased to 12.25% in 2010-11 and then there is an increase to 13.94% in 2011-12. It has an overall average of 13.59%. It has a very low standard deviation of 0.87 and a low coefficient of variation of 6.37%.

### 3. Compound Annualised Growth Rate

The compound annualized growth rate is year-over-year growth rate of an investment over a specified period of time. The compound annual growth rate is calculated by taking the nth root of the total percentage growth rate, where n is the number of years in the period being considered.

In the present study the compound annualized growth rate in sales turnover is showing an increase of 12.35% which is a good growth rate during the period of study (as shown in figure-1).



Fig. 1-Sales turnover: CAGR of 12.35%

For the net profit the compound annualized growth rate is 11.06% again which is a very good from organization point of view (as shown in figure-2).



Fig. 2-Net Profit: CAGR of 11.06%

For the operating profit margin annualized growth rate is 12.49% which is again a very good for the organization (as shown in figure-3).



Fig. 3-Operating profit: CAGR of 12.49%

### 4. Correlation Analysis

Correlation analysis is the mathematical tool that is used to describe the degree to which one variable is linearly related to the other. It therefore, is directed towards measuring the degree of association of the two variables. The presence of correlation between two variables does not necessarily mean that there is a cause and effect relationship between the two, for this we have to use significance test also.

- *Correlation between Net Working Capital and Net Profit*– The correlation coefficient between these two is 0.49 which shows that there is a positive association between these two variables but the association is not significant because the t value is 0.973 which is less than the table value i.e. 3.182 at 5% significant level.
- *Correlation between Net Working Capital and Net Sales*– The correlation coefficient between these two is 0.49 which shows that there is a positive association between these two variables but the association is not significant because the t value is 0.973 which is less than the table value i.e. 3.182 at 5% significant level.
- *Correlation between Net Working Capital and Operating Profit*– The correlation coefficient between these two is 0.41 which shows that there is a positive association between these two variables but the association is not significant because the t value is 0.817 which is less than the table value i.e., 3.182 at 5% significant level.
- *Correlation between Net Working Capital and Return on Capital Employed*– The correlation coefficient between these two is  $-0.055$  which shows that there is a very low negative association between these two variables but the association is not significant because the t value is  $-0.095$  which is less than the table value i.e., 3.182 at 5% significant level.
- *Correlation between Current Ratio and Net Profit*– The correlation coefficient between these two is 0.78 which shows that there is a high degree positive association between these two variables but the association is not significant because the t value is 2.16 which is less than the table value i.e., 3.182 at 5% significant level.
- *Correlation between Liquidity Ratio and Net Profit*– The correlation coefficient between these two is 0.84 which shows that there is a high degree positive association between these two variables but the association is not significant because the t value is 2.68 which is less than the table value i.e., 3.182 at 5% significant level.
- *Correlation between Inventory Turnover Ratio and Net Profit*– The correlation coefficient between these two is 0.89 which shows that there is a very high positive association between these two variables but the association is significant also because the t value is 3.38 which is more than the table value i.e., 3.182 at 5% significant level.
- *Correlation between Numbers of Days in Working Capital and Net Profit*– The correlation coefficient between these two is 0.74 which shows that there is a positive association between these two variables but the association is not significant because the t value is 1.904 which is less than the table value i.e. 3.182 at 5% significant level. It interpreted that negative working capital days are positively associated with the profitability.

## Major Findings of The Study

On the basis of above analysis, certain findings and conclusions were made which are as follows:

- It has been observed that the company normally follows a pattern of negative working capital.
- The inventory in absolute terms is showing decreasing trend which is directly contributing in the reduction of working capital.
- Debt collection period is very low that is only 13 days which shows the efficiency of the company in collecting its debts. It also contributing in the decrease of working capital of the organization.
- The Current Ratio of the company is noticed constantly lower than the standard norms throughout the period of study.
- The Quick Ratio of the company also noticed less than the standard level throughout the period of study.
- Working capital turnover ratio shows a negative tendency throughout the period of study.
- Return on capital employed is showing a decreasing trend which is not good but the standard deviation and coefficient of variation is very low which is good.
- On the basis of study of compound annualized growth rate it is found that sales turnover, net profit, operating profit margin are showing positive growth rate of more than 10% which is quite satisfactory from companies point of view.
- The study of correlation analysis states that there is a positive association between the Net Profit and Net Working Capital, Net Profit and current ratio, Net Profit and Liquid Ratio though the association is found not to be significance. It shows a high degree positive significance association between Inventory turnover ratio and net profit.
- The study showing with the negative Number of Working days that there is a positive relationship with the net profit.

## Conclusion

On the basis of the above findings we can concludes that the company is managing their current assets very effectively. Due to the improved inventory turnover ratio and better working capital management cycles, the company is enjoying the wide gap between the days of cash receipts from their debtors to payment days to their creditors. With the negative working capital the study is showing positive relationship of net working capital and net profit and with net sales. The company is doing too well and having a very good return on capital employed. It is to be noted that it can't be considered that the positive association can be due to the positive working capital position for the year 2008–09 because when we exclude

this year the degree of correlation increased to 0.58 from 0.49. With negative working capital the company sales, net profit and operating profits are showing positive growth rate which indicates that company is doing well and profitability is not adversely affected by the negative working capital. It has been proved by the study that as stated by Jain (1988) that the companies should avoid under-investment in working capital if they wanted higher profit margins is not correct always.

### Limitations of The Study

The analysis and interpretation are based on secondary data contained in the published annual reports of Hindustan Unilever for the period, so it is subject to all limitations that are inherent in the condensed published financial statements. Due to the limited time available the study has been confined for a period of 5 years only. The study of financial performance can be only a means to know about the financial condition of the companies. Ratio itself will not completely show the company's good or bad financial position.

### Abbreviations Used

GWC	= Gross Working Capital
NWC	= Net Working Capital
C. L & PROV.	= Current Liabilities and Provisions
ITR	= Inventory Turnover Ratio
ICP	= Inventory Conversion Period
DTR	= Debtor Turnover Ratio
DCP	= Debt Collection Period
CR	= Current Ratio
QR	= Quick Ratio
ROCE	= Return On Capital Employed
PBITM	= Profit before Interest and Tax Margin
WCTR	= Working Capital Turnover Ratio

### References

- Bardia S C (2004), "Liquidity Management: A Case Study of Steel Authority of India Ltd.," *The Management Accountant*, ICWAI, June, pp. 463–467, Kolkata.
- Dutta J S (2000), "Working Capital Management of Horticulture Industry in HP: A Case Study of HPMC", Unpublished Thesis, Himachal Pradesh University.
- Ghosh S K and Maji S G (2003), "Utilization of Current Assets and Operating Profitability: An Empirical Study on Cement and Tea Industries in India", *Indian Journal of Accounting*, IAA, pp. 81–91, Ujjain, December.
- Mallik A K and Sur D (1998), "Working Capital and Profitability: A Case Study in Interrelation", *The Management Accountant*, ICWAI, November, pp. 805–809, Kolkata.
- Mallik A K, Sur D and Rakshit D (2005), "Working Capital and Profitability: A Study on Their Relationship with Reference to Selected Companies in Indian Pharmaceutical Industry", *GITAM Journal of Management*, Vol. 3, No. 2, pp. 51–62.
- Narware P C (2004), "Working Capital and Profitability: An Empirical Analysis", *The Management Accountant*, ICWAI, June, pp. 491–493, Kolkata.
- Sarkar J B and Saha S N (1987), "Profitability Crisis & Working Capital Management in the Public Sector in India: A Case Study", *The Management Accountant*, pp. 328–333, ICWAI, May, Kolkata.
- Sivarama P R (1999), "Working Capital Management in Indian Paper Industry", Unpublished Thesis, Nagarjuna University, Nagarjuna Nagar, Guntur.
- Smith M B (1997), "Measuring Associations Between Working Capital and Return on Investment", *South African Journal of Business Management*, Vol. 28, No. 1, pp. 1–4.
- Vijayakumar A and Venkatachalam A (1995), "Working Capital and Profitability—An Empirical Analysis", *The Management Accountant*, ICWAI, June, pp. 748–750, Kolkata.
- Deloof M (2003), "Does Working Capital Management Affect Profitability of Firms", *Vikalpa*, Vol. 28, No. 2, pp. 537–585.
- Kesseven Padachi (2006), "Trends in Working Capital Management and Its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms", *International Review of Business Research Papers*, Vol. 2, No. 2 (October).
- Raheman A and Nasr M (2007), "Working Capital Management and Profitability: Case of Pakistani Firms", *International Review of Business Research*, Vol. 3, No. 2, pp. 275–296.
- Deloof, M. 2003. "Does Working Capital Management Affects Profitability of Belgian Firms?", *Journal of Business Finance & Accounting*, Vol 30 No 3 & 4 pp. 573–587
- Eljelly, A. 2004. "Liquidity-Profitability Tradeoff: An empirical Investigation in an Emerging Market", *International Journal of Commerce & Management*, Vol 14 No 2 pp. 48–61
- Richard, V. D. and Laughlin, E. J. 1980. "A Cash Conversion Cycle Approach to Liquidity Analysis", *Financial Management*, Vol 9 No 1 pp. 32–38
- Smith, M. Beaumont, Begemann, E. 1997 "Measuring Association between Working Capital and Return on Investment", *South African Journal of Business Management*, Vol 28 No 1
- Dabasish Sur and Kaushik Chakraborty (2011), "Evaluating Relationship of Working Capital and Profitability: A Study of Selected Multinational Companies in the Indian Pharmaceutical Sector", *The IUP Journal of Management Research*, Vol. X, No. 2, 2011.
- Amit kumar Arora, *Management of Working Capital*, 1st Edition, Global Academic Publisher, New Delhi.
- Official website of HUL