Working Capital Management: A Study with reference to selected Indian FMCG companies

DR. DEBDAS RAKSHIT AND CHANCHAL CHATTERJEE

In the arena of increased globalized economy, maximizing shareholders' value and thereby creating value for the company is considered to be the central objective of business firms. In this relevance, the present article seeks to explain how the management of working capital can facilitate a company in realizing its objective of value creation in the era of value-based-management.

I Introduction:

In the arena of increased globalized economy, every business organization seeks to determine and achieve its most desirable objective(s). In today's modern world of corporate finance, maximizing shareholders' value and thereby creating value for the company is now considered the principal objective of a business firm and in achieving such objective, proper and efficient management of finance is quintessential. The four most vital and important aspects of financial management are: Resource mobilization (i.e.; capital structure decisions), Resource deployment (i.e.; capital budgeting and working capital management), Surplus generation (i.e.; value creation) and disposition of surplus (i.e.; reinvestment or dividend distribution). In order to facilitate the realization of the objective of maximizing shareholders' value and creating value for the company, value-based-management systems have been developed. Value-based-management seeks to create value for the company by means of integrating management of finance with modern as well as updated strategic thinking. Thus, in the given circumstances and in varying situations, the corporate finance has to be managed strategically so that, it may help the company in creating value and thereby increasing its command over the market. During last two decades, the systems of value-based-management have obtained wide popularity around the world of corporate finance. Now in the realm of value-

Dr. Debdas Rakshit is Sr. Lecturer, Department of Commerce, The University of Burdwan, Golapbag-Burdwan, Pin-713104, E-mail: debdas_rakshit@yahoo.co.in

Chanchal Chatterjee is UGC Project Fellow, Department of Commerce, The University of Burdwan, Golapbag- Burdwan, Pin-713104, E-mail: chanchal_chatterjee2007@ yahoo.co.in

based-management, management of assets is now playing a pivotal role in the world economy. Hence, every business firm should devote considerable attention towards the effective as well as efficient management of assets. In the management of assets, both fixed assets management and working capital management are vital. However, in the present article, we are mainly dealing with the second part, i.e.; working capital management. Effective as well as proper management of working capital facilitates, to a great extent, in creating value for the company.

In this backdrop, in the present article, an attempt has been made to explain how the strategic management of working capital facilitates a company in creating value and contributes to the value-based-management systems by analyzing working capital management practices in Fast Moving Consumer Goods (FMCG) industry with the help of five selected Indian companies.

The remainder of this article has been designed as fallows. Section II represents the review of existing literatures related to this area. Objectives of the study have been set in section III. In section IV the database and methodology used in this study are shown. Section V concentrates on the major findings and results of such study and finally the conclusion has been drawn in section VI.

II. Review of Literature:

Before entering into the empirical study, we may throw a little light on the existing literatures on the management of working capital. During last few decades, several studies have been conducted both in India as well as abroad regarding the various aspects of working capital management. A brief explanation of some of the studies is shown below:

Chakraborty (1976) made a study to examine the relationship between working capital turnover and profitability in Indian cement, fertilizer and sugar industries. As findings of the study, he reported positive association between profitability and working capital turnover.

Mukherjee (1988) conducted a study on the issue of working capital management in twenty (20) central public sector undertakings. The study identified positive association between liquidity and profitability in 11 cases and negative association in 9 cases. However, as final conclusion, the study inferenced the negative association between liquidity and profitability.

Shin and soenen (1998), in their research activity, highlighted that working capital management plays a vital role to create value for the shareholders. Using correlation and regression analysis, the relationship between Net Trading Cycle, Corporate profitability and risk adjusted stock return was examined. As findings, they reported a strong negative association between the lengths of net trading cycle and profitability of a firm.

Deloof(2003), in his study using correlation and regression tests observed a significant negative association between gross operating income and the number of days inventories , accounts receivable and accounts payable of Belgian firm. He ultimately argued that firm managers could create value for shareholders by resorting to the strategy of reducing the number of days' inventories and accounts receivables and to the lowest possible level. The negative association between accounts payable and profitability implies that less profitable firms wait longer period to pay their dues.

Eljelly (2004) made an attempt to examine the association between liquidity and profitability by using current ratio and cash conversion cycle on a sample of joint stock companies in Saudi Arabia. As findings, the study showed that the cash conversion cycle was more important than the current ratio as a measure of liquidity indicators. Such study also reported a significant variation among industries with respect to the relevant measure of liquidity.

Raheman and Nasr (2007) made a study on working capital management and profitability on a sample of 94 selected Pakistani firms listed on Karachi Stock Exchange for a period of six years (1999-2004). They actually examined the effects of different variables of working capital management including the average collection period, average payment period, inventory turnover, cash conversion cycle and current ratio on the net operating profitability of Pakistani firms. As findings, the study reported that there is a strong negative relationship between variables of the working capital management and profitability of the firms. They have also found a significant negative relationship between liquidity and profitability.

III. Objectives of the study:

This study seeks to attempt the following objectives:

1. To search out the relationship between working capital management and profitability of the selected firms under study.
2. To find out the association, if any, between working capital management and investment activities of the selected companies.
3. To find out the effects of different components of working capital on firms' profitability.
4. To investigate whether there is any new route of managing working capital in this world of modern corporate finance.

IV.Database and Methodology:

The present study has been conducted on FMCG industry by considering a sample of five reputed and well known companies belonging to this industry. This study is mostly based on secondary data collected from secondary sources.

"Capitaline 2000" data base package has been extensively used for collecting several types of financial data. Apart from this, various reliable authorities' books, journals periodicals, magazines have been consulted.

For evaluating the working capital management practices of the selected companies, working capital cycle of each and every component of working capital have been computed.

In order to measure the degree of relationship between variables, Pearson's simple correlation analysis technique and Spearman's rank correlation analysis technique have been adopted. Moreover, t test has also been applied for testing the significance level of 5% or 1% and all such calculations and testing have been made by using SPSS Statistical software.

V. Computations and Major Findings:

Table-1. **Operating Cycle (in days)**

Table 1.1: HLL (in days)

	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	96-97	95-96	94-95
Inventories	44	54	51	47	43	41	47	44	48	50	75
Sundry Debtors	17	18	17	13	15	9	8	7	7	8	17
Cash and Bank	12	26	29	35	31	18	29	25	27	11	10
Loans and Advances	18	23	30	31	29	27	24	24	20	32	44
Total current Assets	91	121	126	126	118	95	108	101	103	101	146
Current Liabilities	97	95	92	90	83	77	77	72	78	70	83
Provisions	38	41	47	44	37	31	25	20	19	13	13
Total Current Liabilities	136	137	140	135	120	108	102	93	97	83	96
Working Capital Cycle	-45	-16	-14	-9	-3	-13	6	8	6	18	50

Table 1.2: Nestle Ltd. (in days)

	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	96-97	95-96	94-95
Inventories	37	35	37	41	43	48	40	49	59	59	82
Sundry Debtors	5	4	5	4	6	7	17	16	24	33	38
Cash and Bank	5	2	1	1	1	2	1	0	0	0	1
Loans and Advances	21	17	18	22	22	20	21	20	21	21	22
Total current Assets	68	59	62	69	72	77	80	84	105	114	143
Current Liabilities	47	34	41	41	40	44	39	32	37	47	62
Provisions	54	57	43	40	36	50	38	22	21	6	11
Total Current Liabilities	101	101	84	81	76	94	77	54	58	53	74
Working Capital Cycle	-33	-43	-22	-12	-5	-17	2	31	47	61	70

Table 1.3: Colgate & Palmolive Ltd. (in days)

	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	96-97	95-96	94-95
Inventories	28	24	20	24	28	26	30	45	39	43	59
Sundry Debtors	7	13	16	24	15	15	20	25	18	10	12
Cash and Bank	21	50	38	32	24	27	25	10	8	6	20
Loans and Advances	38	42	60	36	51	42	47	25	28	21	33
Total current Assets	95	128	134	117	119	110	100	106	94	81	124
Current Liabilities	82	77	95	81	64	51	68	51	41	40	71
Provisions	37	37	28	17	45	31	32	24	19	18	19
Total Current Liabilities	119	114	123	98	110	82	100	74	60	57	90
Working Capital Cycle	-24	14	11	19	9	28	22	31	34	23	34

Table 1.4: Britannia Ltd. (in days)

	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	96-97	95-96	94-95
Inventories	32	31	23	19	24	23	24	26	25	33	33
Sundry Debtors	11	5	8	6	9	12	11	22	18	18	18
Cash and Bank	4	2	20	14	10	16	10	3	1	2	1
Loans and Advances	15	20	26	24	23	23	25	26	35	25	32
Total current Assets	62	58	78	63	66	74	70	76	80	78	83
Current Liabilities	50	35	45	39	49	63	62	68	70	69	61
Provisions	24	20	9	5	7	9	8	8	6	7	8
Total Current Liabilities	73	55	54	45	56	72	70	76	76	77	70
Working Capital Cycle	-11	3	24	18	10	2	1	0	4	1	13

Table 1.5: DIL (in days)

	04-05	03-04	02-03	01-02	00-01	99-00	98-99	97-98	96-97	95-96	94-95
Inventories	38	37	56	52	46	53	53	55	52	73	59
Sundry Debtors	15	14	37	40	45	43	37	60	65	40	69
Cash and Bank	3	4	12	7	8	25	24	10	4	4	6
Loans and Advances	19	19	23	36	30	29	29	28	36	68	98
Total current Assets	75	74	128	135	130	150	143	153	156	215	232
Current Liabilities	71	55	50	43	37	31	29	31	26	44	49
Provisions	25	24	16	6	15	8	5	8	12	20	21
Total Current Liabilities	96	80	67	49	52	39	35	40	38	64	70
Working Capital Cycle	-21	-6	61	86	78	111	108	113	118	151	162

From the entire picture of operating cycles of the five selected companies, it is evident that HLL and Nestle are running with negative working capital from the F.Y. 1999-2000, DIL from the F.Y. 2003-04 and Britannia Ltd and Colgate Palmolive Ltd from the F.Y.2004-05 up to the end of the study period. That means, all these companies are working with negative working capital at least during the last phase of the study period and they have reduced their holdings on net working capital gradually over the study period. In order to arrive at this end, these companies have reduced their money holdings on inventories, sundry debtors, cash and banks etc. For instance, Nestle reduced its inventory holding period from 82 days in 1994-05 to 37 days in 2004-05 and the company has also reduced its average money holdings on sundry debtors from 38 days in 1994-05 to 5 days in 2004-05. Companies are also reducing their blockage of funds on loans and advances gradually over the period under study. Almost identical picture is prevailing for other companies also. More precisely, companies are resorting to the strategy of reducing their holdings on current assets and thereafter increasing their current liabilities. As a consequence of that, such business firms are now running with negative working capital.

Theoretically it is argued that, negative working capital is undesirable as well as harmful for a firm so far as the liquidity aspect is concerned. Naturally, companies with negative working capital balance may be expected to suffer from the problem of liquidity during normal course of business activities. Now question may be raised, is it really true?

Is this theoretical argument viable in this modern as well as rapidly changing world of corporate finance? Will these companies really face serious liquidity problem in near future in managing their business due to that negative working capital? To find out the answers of these quarries, we have to go through the in-depth analysis of working capital management practices of these companies.

If we enter into the in-depth analysis of such strategy of working capital management, we may find a relationship between working capital management and investments of a firm. This fact would be more clear from the analysis of the following Table II and Table III:

For the sake of analysis, we may divide the entire period of 11 years into two equal periods of five years taking the F.Y. 1999-2000 as the middle year. So period I represents the period from 1994-95 to 1998-99 and period II denotes the period from 2000-01 to 2004-05. Now consider the following table:

Table II. **Net Working Capital and Investments**

(Rs.in crore)

Year	HLL		Nestle		Britannia		DILL		Colgate&Polmolive	
	NWC	Investment	NWC	Investment	NWC	Investment	NWC	Investment	NWC	Investment
1994-95	457.67	122.83	181.91	0.7	49.13	21.67	223.03	24.51	2.02	87.05
1995-96	325.33	328.78	190.8	0.09	84.89	1.16	219.59	34.13	7.76	73.09
1996-97	122.42	531.57	175.18	0.09	83.17	11.08	241.79	43.15	0.69	91.19
1997-98	205.66	697.51	128.04	0	58.47	11.08	260.26	47.83	1.75	129.31
1998-99	186.76	1006.11	8.56	12.39	80.31	11.08	304.01	47.17	6.51	146.99
1999-2k	-373.38	1769.74	-74.51	0	-3.75	55.08	235.32	72.73	25.7	215.61
2k-01	171.44	1635.93	-31.75	10.46	31.05	53.53	242.32	123.32	59.22	310.37
2001-02	30.10	2364.74	-74.38	32.63	13.93	105.21	190.31	123.74	74.65	296.85
2002-03	-101.37	2574.93	-138.85	73.64	36.64	115.89	-24.3	171.23	4.29	291.32
2003-04	-483.29	2229.56	-258.85	154.86	-57.8	160.78	-81.66	270.94	-48.49	330.08
2004-05	-1135.17	2014.20	-232.58	104.43	-42.03	148.34	-38.35	275.08	30.89	359.86

Table III. **Average values of Net Working Capital and Investments**

(Rs.in crore)

	HLL		Nestle Ltd.		Britannia Ltd.		DIL		C&P Ltd.	
	Period I	Period II	Period I	Period II	Period I	Period II	Period I	Period II	Period I	Period II
Net Working Capital	222.22	-243.68	136.90	-147.28	3.75	24.11	249.74	57.66	71.19	-3.64
Investments	537.33	2164	2.654	75.204	105.53	317.70	39.36	192.86	11.21	116.75

Table III exhibits a clear downward moving trend in average net working capital for all the companies except Britannia Ltd. The balance of average net working capital for period II is significantly lower than that of period I for these four companies. More specifically, the average NWC balance of period II of HLL is 210% lower than that of period I. For Nestle, DIL and C&P Ltd. also the average NWC balances have been declined by 208%, 77%, and by 105% in period II over the period I respectively. Even such balances in period II have become negative for HLL, Nestle and C&P. (all are average values).

On the other, if we look at the investment part of the companies, we can observe a different picture. Investments in period II have been substantially increased over the period I for all these five selected companies. To be more precise, the average investment of HLL in period II is four (4) times higher than that of period I. Almost identical picture is evident for others companies also. For instance, the average investment corresponding to period II of Nestle, Britannia Ltd, DIL and C&P is 28 times, 3 times, 5 times and 10 times higher than that of period I respectively.

If we combine these two different pictures, we may find a new philosophy underlying the management of working capital by firms. The philosophy is that, companies are declining their holdings on current assets and thereby increasing their investments gradually over time. In today's modern business world, companies are now pursuing this strategy of working capital management on the basis of some hypotheses which are pointed out below:

1. Net working capital and profitability of firms are negatively correlated.
2. Investments and profitability of firms are positively associated.

If these two hypotheses are true, then companies will always try to reduce their NWC balances and increase their investments with a view to enhance companies profitability and ultimately to crate value for them. Whether these two hypotheses are true or not, that can be analyzed and tested with the help of correlation analysis and t test.

Now we may analyze the relationship between net working capital and investments of the firms by applying the techniques of Pearson's simple correlation analysis and Spearman's rank correlation analysis. Moreover, the relationship between firm's profitability (measured by Return on Investment) and net working capital and also the association between firms investments and profitability (measured by ROI) may also be investigated with the help of these two techniques. Consider the following table:

Table IV. **Pearson's simple correlation coefficients and Spearman's rank correlation coefficients**

Company	ROI and Investments		ROI and NWC		NWC and Investments	
	r	R	r	R	r	R
Nestle	.8653**	.7763**	-.9433**	-.9636**	-.8409**	-.6849*
Britannia Ltd	.6509*	.7455**	-.3913	.0182	.1866	.0909
Dabur India Ltd.	.8848**	.4091	-.9077**	-.7636**	-.8532**	-.3273
Colgate Palmolive Ltd	.3693	.1743	-.3148	-.2091	-.8542**	-.8716**
Hindustan Liver Ltd.	.1858	.1545	-.0321	-.1182	-.5985	-.7818**

Here r denotes Pearson's simple correlation coefficients.
R represents Spearman's rank correlation coefficients.
* implies significant at 5% level of significance and
** indicates significant at 1% level of significance.

From Table IV, it is evident that Pearson's simple correlation coefficient between net working capital and investments is negative in four out of five selected companies and in two companies, such coefficient is found to be highly significant at 1% level and in one company, such coefficient has been noticed to be significant at 5% level. For Britannia Ltd only, the coefficient is positive but not significant at 5% level. This table also exhibits that, in the case of Spearman's rank correlation analysis also, such association between net working capital and investments is negative in four out of five selected companies, of which, two negative coefficients are highly significant at 1% level and one coefficient is found to be significant at 5% level. Such coefficient is weakly positive for Britannia Ltd only, but is not significant at all.

These results simply indicate that, net working capital and investments of firms are negatively correlated to each other. We have found the mirror image of such relationship in both these two techniques of correlation analysis. The outcome of this analysis also strengthens our argument that companies, at present, are running with the strategy of declining their holdings on working capital and thereby increasing the quantum of investments gradually.

Now we may analyze the relationship between firms' profitability and net working capital with the help of two techniques of correlation analysis. Table II shows that, Pearson's simple correlation coefficients between ROI and net working capital are negative in all these five selected companies, of which, two coefficients (Nestle and DIL) have been noticed to be significant at 1% level. Almost identical picture is evident for Spearman's rank correlation analysis as well. Here, out of five companies, four companies have reported adverse association between these two variables, out of which, two coefficients (Nestle and DIL) have been found to be significant at 1% level. The rest one, (Britannia Ltd.) has shown slightly positive association between these two variables but is very much insignificant.

So far as the relationship between investments and firms' profitability (measured by ROI) is concerned, we are observing from Table IV that Pearson's simple correlation coefficient between the said two variables is positive in all the five selected companies. Out of these, two coefficients (Nestle and DIL) are significant at 1% level and one coefficient (Britannia Ltd.) is significant at 5% level. Table II also reveals that, Spearman's rank correlation coefficient between these two variables is positive in all the companies selected under the study. Among these, two coefficients (Nestle and Britannia Ltd.) have been found to be significant at 1% level. These results convey the message that firms' profitability and investments are positively associated to each other and a firm may enhance its profitability by means of increasing its investments.

From the entire multiple correlation analysis among ROI, Net Working Capital and Investments, one simple inference may be drawn that companies have the opportunity of increasing their profitability by reducing their holdings on Net Working Capital and at the same time, by enlarging their investment networks. If companies pursue this strategy, an adverse association may be expected between net working capital and investments and in our empirical analysis; such negative relationship has been established for all the companies under the study barring Britannia Ltd., where such association has been found to be weakly positive. In this way companies are now contributing to their value creation by managing their working capital in a different manner.

However, one important question may be raised against such strategy. The question is that, if companies reduce their working capital balances and if they run with negative working capital with a view to enhance their profitability, they are supposed to face the challenge of liquidity. Their liquidity position may be dangerous due to this strategy and ultimately they may face hardships or difficulties in conducting their regular business activities. Does this problem really subsist in this rapidly changing and dynamic business world where automation and updated technology have acquired a significant ground? The very simple answer is NO. Why? With the development as well as expansion of modern technologies,. E-BANKING system has been launched. Companies may enjoy the benefits of the E-BANKING system in operating their business activities. They may collect funds / cash from the sale of some investments very sharply with the help of E-BANKING system and they can meet their liquidity problem during times of need. As a result, there is little needs of keeping funds blocked in current assets by sacrificing the opportunity of alternative profitable investment avenues. Hence, working capital and investments are to be managed strategically for the ultimate benefit of the organization and in doing so, the modern as well as updated e-infrastructure may be utilized. Actually, Electronic Fund Transfer (EFT) system has made the banking system globalised by the application of Information Technology (IT).

So far as the avenues of investment are concerned, companies will form such a portfolio (combination of some securities) where some stable securities should remain incorporated. Stable securities refer to those securities whose bid-ask margin is very low. Bid price refers to the price which an investor is ready to pay for purchasing any security and ask price denotes the price that an investor demands while selling the security. During urgency, companies may sell these securities without any substantial amount of expected loss. As a consequence of that, the ultimate strategy of working capital management would be fruitful. That means solving the need of liquidity in times through e-banking system and also earning substantial return from investment alternatives. In a nutshell, this has become a new strategy of managing working capital to a new route and ultimately this strategy is contributing positively towards value creation of firms in the era of value based management.

VI. Conclusion:

From the entire discussion of this article, it appears that, the concerned companies at present are reducing their holdings on working capital and at the same time enlarging their investment portfolios in a strategic way. Management of working capital in a strategic mode is now contributing to the value- based- management systems and with the help of that companies under study are creating value for them. The present E-BANKING system is providing the companies due protection against the risk of technical insolvency (i.e.; Liquidity risk) without sacrificing the opportunity of earning substantial returns from multiple investment avenues. This strategic mechanism is facilitating the companies to manage their working capital in a new route instead of following the traditional views.

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