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WORKING CAPITAL MANAGEMENT IN INDIAN FMCG INDUSTRY: A CASE STUDY OF DABUR INDIA LTD

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ABSTRACT

The need for efficient liquidity management cannot be over-emphasized in such a situation. A strong liquidity base may be identified as the vital force of any concern for sustaining its day-to-day operations. Besides, the sound liquidity position enables the concern in maintaining a favourable credit term with its suppliers. With the transformation in the business environment in India, the income as well as the consumption patterns of the people of India have marked notable changes in the post-liberalization period. As a result, the companies belonging to the FMCG sector have also changed their business policies to face the different challenges emanated from the liberalization measures taken by the Government of India. It leads to considerable changes in the liquidity management practices in Indian FMCG companies. It is, therefore, high time to analyse the working capital management of the FMCG sector in India during the post-liberalisation period. In this backdrop, the present study attempts to make an analysis of the working capital management of Dabur India Ltd., a very well-known company in the Indian FMCG industry during the period 1994-95 to 2015-16. **KEY WORDS:** Working capital, Working capital management, FMCG sector.

I. INTRODUCTION

Presently in corporate sector funds problem being the most common among the majority of the industries, appropriate utilization of available fund is the prime concern of the managerial people. The need for proper working capital management (WCM) cannot be over-emphasized in such a situation. A strong working capital (WC) base may be identified as the vital force of any concern for sustaining its day-to-day operations. Besides, the sound WC position facilities the concern in maintaining a sound liquidity which enables it to maintain a favourable credit term with its suppliers. So, to dominate over the operating cycle odds, not only the corporate giants but almost all the business enterprises, irrespective of their sizes, have been concentrating much on the management of WC. The relative importance of WC varies from industry to industry. A firm in the consumer goods industry may have relatively a higher percentage of the total investment in current assets as compared to the investment in fixed assets. From that point of view WCM may assume a greater importance in FMCG industry.

II. RELEVANT LITERATURE REVIEW

In the last few decades, several studies have been conducted on the analysis of WCM of different sectors in India and abroad. A considerable number of studies on the same issue have also been carried out in different countries during the post-liberalisation period. The following paragraphs present brief discussion on some significant studies made in this field.

Vijayasaradhi and Rao (1978) in their study on WCM of Indian public enterprises revealed that the management of WC played a key role in the success of the enterprises. The study indicated that increasing trend in the investment of

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current assets, unlike in fixed assets, resulted in higher carrying costs which in turn negatively affected the profitability of the companies.

Reddy (1991) in his study examined various issues associated with WCM of the six large-scale companies belonging to the private sector in the state of Andhra Pradesh during the period 1977 to 1986. The study reflected that the extent of investment in current assets in sample companies was more than that of fixed assets and that the inventories constituted the highest percentage of total current assets in the sample companies.

Sur (1997) in his study on WCM in Colgate Palmolive (India) Ltd. attempted to analyse the efficiency of the WCM of the company during the period 1980 to 1991. This study revealed that the liquid assets of the company were insufficient to meet currently maturing obligations and a major part of short term funds was blocked up in inventories. The study recommended to give special attention to the inventory management of the company by employing all the relevant techniques of inventory control for maintaining an overall control over its WC.

Laitinen and Laitinen (2003) conducted a study on cash management behaviour and failure prediction. This study was made in order to evaluate the information contained in the inventory cash management models to predict failure on a sample of bankrupt firms and their nonbankrupt counterparts. The net outcome derived from the study was that the estimates of the elasticity of cash balance with respect to the volume of transactions was lower for failed firms.

Jafar and Sur (2006) carried out a study in order to examine the efficiency of WCM in NTPC Ltd during the post-liberalization era. The study revealed that the selected company was able to achieve a higher level of efficiency in managing its WC during the post-liberalization era by adapting itself to the new environment emanated from liberalization, globalization and competitiveness.

Anand and Malhotra (2007) made an empirical study on the performance of WCM in Indian corporate sector. This study was made in order to develop quantitative benchmarks at both the firm level and the industry level so as to evaluate the WCM performance of Indian corporate sector. One of the notable outcomes of the study was that strong evidence of positive relationship between WCM and firms' profitability was absent during the period under study.

Nobanee and Alttajjar (2009) conducted a study on the relationship between WCM and corporate profitability of Japanese firms. The study was based on a sample of 2123 Japanese non-financial firms listed in the Tokyo Stock Exchange for the period 1990 to 2004. The net outcome of the study conformed to the theoretical argument that the profitability can be increased by shortening the cash conversion cycle, the receivable collection period, inventory conversion period and also by lengthening the payable deferral period.

Nazir and Afza (2009) carried out a study on the impact of WCM policy on firms' profitability. This study was made in order to investigate the relationship between the policy of WCM and profitability. This study revealed a positive relationship between firms' profitability and the conservativeness of their WC investment and financing policies.

Christopher, Kamalavalli and Talha (2010) carried out a study on the measurement of sensitivity of profitability to WCM in corporate hospitals in India. While conducting this

study, the researchers used correlation and regression techniques for analyzing the data for the period 1996-97 to 2005-06 collected from 14 corporate hospitals in India. The study reflected a significant negative relationship between liquidity and profitability of the selected hospitals during the period under study.

Based on the above discussion, it can be inferred that although a good number of studies on the different issues associated with the WCM carried out in India during the post-liberalisation period, no significant study on the WCM of the Indian FMCG sector has so far been made during the post-liberalisation era. It is a well established fact that the FMCG sector in India has been playing a vital role in developing its economy not only by providing a large number of consumer goods necessary for carrying on day-to-day activities of the general people but also by generating a considerable amount of employment in India. The income as well as the consumption patterns of the people of India have marked notable changes in the post-liberalisation period. As a result, the companies belonging to the FMCG sector have also changed their business policies to face the different challenges emanated from the liberalisation measures taken by the Government of India. It leads to considerable changes in the WCM practices in Indian FMCG companies. However, no in-depth study on the WCM of the FMCG sector in India considering the effects of the above mentioned changes in Indian business environment has been made. It is, therefore, high time to analyse the WCM of the FMCG sector in India during the post-liberalisation period. In this backdrop, the present study attempts to make an analysis of the WCM of Dabur India Ltd., a very well-known company in the Indian FMCG industry during the period 1994-95 to 2015-16.

III. OBJECTIVES OF THE STUDY

The present study has the following objectives:

- To assess the liquidity and efficiency of WCM of the selected company using some selected ratios.
- To measure the liquidity status of the company more precisely by using a comprehensive rank test.
- To examine the relationship between liquidity and profitability of the company.

IV. METHODOLOGY OF THE STUDY

The data of Dabur India Ltd. for the period 1994-95 to 2015-16 used in this study were collected from the Capitaline Corporate database, published by Capitaline Publishers (India) Ltd. For the purpose of assessing the performance of WCM of the company under study, some important ratios like current assets to total assets ratio, current ratio, quick ratio, inventory turnover ratio and debtors turnover ratio were used. While analysing the liquidity of the company more precisely Motaal's Test was applied. For examining the relationship between liquidity and profitability of the selected company Spearman's rank correlation analysis was made and in order to test whether such correlation coefficient was statistically significant or not, t test was used.

V. A BRIEF PROFILE OF THE COMPANY UNDER STUDY

Dabur India Ltd. is one of India's leading FMCG Companies with revenues of over Rs. 7,680 Crore and Market Capitalisation of over Rs. 48,800 Crore. Building on a legacy of quality and experience of over 133 years, Dabur is today India's most trusted name and the world's largest Ayurvedic and Natural Health Care Company. Dabur India is also a world leader in Ayurveda with a portfolio of over 250 Herbal/ Ayurvedic products. Dabur today operates in key consumer product categories like Hair Care, Oral Care, Health Care, Skin Care, Home Care and Foods. Dabur's overseas revenue today accounts for over 30% of the total turnover. Very recently Dabur India Ltd. has been placed in the categories of the *World's Best Big Companies, Asia's 'Fab 50'* and the *World's Most Reputable Companies* by Forbes magazine, *India's Most Respected Companies* by Business World and *India's Most Valuable Companies* by Business Today.

VI. EMPIRICAL RESULTS

1. An attempt was made in Table 1 for the purpose of assessing liquidity and efficiency of WCM of Dabur India Ltd using some basic parameters, such as current assets to total assets ratio (CATA), current ratio (CR), quick ratio (QR), inventory turnover ratio (ITR) and debtors turnover ratio (DTR). In Table 2, for identifying the nature of the trend in these selected measures of WCM, linear trend equations were fitted. While examining whether the slopes of these equations were statistically significant or not t test was applied. The following paragraphs provide the results obtained from the analysis of the selected measures of WCM of Dabur India Ltd.

Liquidity Measures:

a) CATA: It shows the proportion of investment in WC to the total funds invested in the business. It reflects the pattern of investment in WC fund. The higher the ratio, the higher is the proportion of fund invested in WC. Table 1 discloses that, on an average, 72 percent of the total funds were invested by Dabur India Ltd. for the purpose of its WC. At a glance, there was an overall downward trend in the CATA of the company during the study period. It ranged between 0.87 in 1994-95 and 0.43 in 2015-16. The linear trend equation fitted to the CATA series reflects that for one unit increase in time, CATA of the company decreased by 0.029 unit which was found to be statistically significant at 5% level. It confirms that there was a notable declining trend in the proportion of investment in WC to that in the total funds invested in the company during the study period. The analysis of CATA of the company reveals that although in relative terms an overall decreasing trend in the WC investment was observed, the company utilized the major portion of its funds for the purpose of meeting day-to-day operating expenses in almost all the years under study.

b) CR: This ratio expresses the relation of the amount of current assets to the amount of current liabilities. It indicates the ability of a business firm to meet its maturing current obligations. The higher the CR, the larger is the amount of rupees available per rupee of current liability, and, accordingly, the greater is the feeling of security. Table 1 depicts that, the CR of Dabur India Ltd. fluctuated between 0.93 in 2015-16 and 3.32 in 1994-95. On an average, it was 2.00. In the first eight years under study period, the values of CR of the company were considerably higher as compared to the company's mean CR for the study period while in the remaining years under study the values of CR were less than the average CR. It indicates that in the initial years under study the company was able to maintain higher liquidity as compared to the remaining years. The linear trend equation fitted to the CR series reveals that when time increased by one unit, the CR of the company reduced by 0.038 unit which was found to be statistically significant at 5% level. It reflects

that with the passage of time the short term debt paying capability of the company declined considerably during the study period.

c) QR: This ratio is concerned with the relationship between quick assets and quick liabilities to supplement the information given by the CR. It is a more rigorous test of liquidity than the current ratio and gives a better picture of the firm's ability to meet its short-term liabilities out of short-term assets. Table 1 shows that the QR of Dabur India Ltd. varied between 2.48 in 1994-95 and 0.49 in 2015-16. On an average, the QR of Dabur India Ltd. was 1.25. In the first six years under study the QR values of the company were considerably higher as compared to the company's average QR while in the remaining years under study the values of QR were less than the average QR. It confirms that in the initial years under study the liquidity position of the company was better as compared to that in the remaining years under study. The trend line fitted to the QR series discloses that for one unit increase in time, the QR of the company stepped down by 0.046 unit which was found to be statistically significant at 5% level. It reflects that the immediate debt paying capability of the company marked a significant declining trend during the period under study. This outcome is in conformity with the results obtained from the analysis of CATA and CR of the company.

Efficiency Measures:

a) ITR: It shows the relationship between the cost of goods sold and the average level of inventory of a firm. It measures the efficiency of the company's inventory management. In general, a high ITR is good from the liquidity point of view and implies sound inventory management whereas a low ratio signifies excessive inventory levels and indicates poor liquidity as well as inefficiency in the inventory management. So a low ITR hurts the overall profitability while a high ITR results in higher profitability of the concern. Table 1 shows that, on an average, ITR of Dabur India Ltd. was 6.98 and it ranged between 4.51 in 1995-96 and 9.59 in 2005-06. The ITR values in the years 2000-01, 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2012-13, 2013-14, 2014-15 and 2015-16 were considerably higher than the average value of ITR for the study period whereas in the remaining years the ITR was placed in the 'below the average value' category. The linear trend equation fitted to the ITR series indicates that when time increased by one unit, the ITR of the company reduced by 0.029 unit which was found to be statistically significant at 5% level. It reveals that the efficiency of the company in managing its inventory decreased notably during the study period. It had an adverse effect on the company's overall liquidity.

b) DTR: It shows the relationship between the net credit sales and the average level of receivables of the company. It indicates how well receivables are turning into cash. It reflects the efficiency of the credit and collection policies adopted by the firm. The higher the ratio, the shorter is the average collection period, the greater is the degree of efficiency in credit management and the better is the liquidity of debtors. Table 1 shows that the DTR of Dabur India Ltd. followed a fluctuating trend during the study period. On an average, it was 16.04. The DTR of the company ranged between 5.20 in 1995-96 and 49.84 in 2005-06 during the period under study. In the years 2003-04, 2004-05, 2005-06, 2006-07, 2007-08, 2008-09, 2009-10, 2010-11, 2011-12 and 2012-13 the DTR

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value of the company was considerably higher than the average value of DTR for the study period while it was below the average value in the remaining years. The linear trend equation fitted to the DTR series reflects that for one unit increase in time, the DTR of the company stepped up by 0.612 unit which was not found to be statistically significant at 5% level. It implies that no strong evidence of upward trend in the efficiency of the company's credit management was noticed during the study period.

2. In Table 3, in order to evaluate the liquidity status of Dabur India Ltd. during the period under study more precisely, Motaal's comprehensive rank test was used. In this test while assigning comprehensive ranks to the years under study three liquidity ratios, namely working capital to current assets ratio (WCCA), inventory to current assets ratio (INCA) and quick assets to current assets ratio (QACA) were taken into consideration. In case of WCCA or QACA, a high value indicates more favourable liquidity position and ranking was done in that order while in case of INCA ratio, a low value implies relatively more favourable liquidity position and ranking was done on the basis of the principle that the lower the sum of individual ranks the more favourable is the liquidity position and vice-versa.

Table 3 discloses that the liquidity of the company was the best in the year 1996-97 and it was followed by the years 1994-95, 1995-96, 1999-2000, 2000-01, 1997-98, 1998-99, 2009-10, 2008-09, 2001-02, 2007-08, 2006-07, 2011-12, 2013-14, 2002-03, 2005-06, 2012-13, 2010-11, 2014-15, 2015-16, 2003-04, 2004-05 respectively in that order. However, in respect of liquidity, the company stood on the same point in 2011-12 and 2013-14.

3. In Table 4, it was attempted to measure the degree of relationship between liquidity and profitability of Dabur India Ltd by applying Spearman's rank correlation coefficient (R_{LP}). While making this analysis liquidity rank based on Motaal's test (as found in Table 3) and profitability rank based on ROCE were used. In order to examine whether the computed value of R_{LP} was statistically significant or not, t test was adopted. Table 4 shows that the computed value of R_{LP} was - 0.48 which was not found to be statistically significant at 5% level. It implies that there was a negative association between the liquidity and profitability of the company during the study period.

VII. CONCLUDING OBSERVATIONS

(i) A significant declining trend in the proportion of investment in WC to total assets investment of the company during the study period was observed. There was also a considerable decreasing trend in both the CR and QR of the company during the period under study. Based on these outcomes, it can be concluded that with the passage of time the overall liquidity of the company declined notably during the study period.

(ii) The net outcome derived from the Motaal's Test reflects that exactly in the beginning of the period under study (i.e. in the year 1996-97) the liquidity of Dabur India Ltd. was the maximum and it was followed by the years 1994-95 and 1995-96 respectively. However, in respect of overall liquidity the company was placed in the most undesirable position in the year 2004-05. Thus, in different parts of the second half of the study period two opposite situations (i.e. high liquidity and low liquidity) were observed. So, the results obtained from the Motaal Test fail to corroborate the outcomes of the analysis of linear trend equations fitted to the CATA, CR and QR series of the company during the study period.

(iii) A notable declining trend in the efficiency of inventory management of Dabur India Ltd. during the period under study was observed. Moreover, the analysis of DTR failed to provide strong evidence of positive growth in the efficiency of debtors management of the company during the study period.

(iv) Although from the viewpoint of efficiency of WCM, a high degree of negative relationship between liquidity and overall profitability is theoretically desirable, the analysis of interrelation made in this study failed to reflect strong evidence of negative association between them. It indicates that the liquidity of the company was unable to make a notable contribution towards enhancing its overall profitability during the study period.

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5- Average	3 0.72	3 2.00	9 1.25	5 6.98	57 16.04
2015-	0.43	0.93	0.49	7.25	13.67
2014-	0.48	1.06	0.58	79.7	16.03
2013-14	0.66	1.21	0.70	7.09	15.07
2012-	65.0	1.19	\$970	7.10	17.04
2011- 12	0.61	1.55	68.0	5.85	16.70
2010-	0.57	1.46	0.77	5.65	16.13
2009-	1.07	1.05	0.71	7.70	21.89
2008-	0.85	1.12	0.73	7.43	2133
2007-08	101	0.95	09.0	8.41	20.74
2006-07	0.94	111	0.67	822	26.25
2005-	0.61	0.93	0.55	65.6	49.84
2004-	39'0	0.78	0.38	8.16	24.88
2003-	0.71	0.93	0.46	8.71	25.73
2002-03	0.78	1.91	1.07	5.83	9.93
2001- 02	0.66	2.78	1.70	6.35	91.9
2000-01	0.70	2.49	1.61	7.18	8.04
1999-00	0.68	3.81	2.48	6.22	8.46
1998- 99	0.62	4.13	2.60	633	9.82
1997-	99.0	3.83	2.45	6.11	6.06
1996- 97	0.70	4.10	2.74	6.48	5.62
-595- 96	68.0	337	2.23	4.51	5.20
1994- 95	0.87	332	2.48	5.54	532
RATIOS	CATA	CR	QR	ITR	DTR

of Working Capital Management of Dabur India Ltd.	
CATA = 0.913 - 0.02904t	
(22.603) (-6.536) [*]	
CR = 1.824 - 0.03821t	
(12.811) $(\cdot 2.416)^{*}$	
QR = 1.225 - 0.04639t	
(14.940) (-5.144)	
ITR = $2.715 - 0.02943t$	
(21.936) (-2.152)	
DTR = 14.887 + 0.612t	
(2.929) (1.095)	

of Dabur India Ltd. Capital Mar of Works li aniditte Table 1 : Selected Ratios

TABLES

VARIABLE	4-95	5-96	6-97	7-98	8-99	9-00	0-01	1-02	2-03	3-04	4-05	2-06	6-07	2007	60-8	9-10	0-11	1-12	2-13	3-14	4-15	5-16
WDCA	0.70	0.70	0.76	0.74	0.76	0.74	0970	0.64	0.48	-0.08	-0.28	-0.08	01.0	-0.05	0.11	0.05	0.31	0.36	0.16	0.17	0.06	-0.07
Rank of WCCA (R1)	5.5	5.5	1.5	3.5	1.5	3.5	8	2	6	20.5	22	20.5	15	18	14	17	11	10	13	12	16	19
INCA	0.26	0.34	0.33	0.36	0.37	0.35	0.35	0.39	0.44	0.50	0.51	0.41	0.40	0.36	0.35	0.33	0.47	0.43	0.46	0.42	0.46	0.48
Rank of INCA (R2)	1	4	2.5	8.5	10	9	9	11	16	21	22	13	12	8.5	9	2.5	19	15	17.5	14	17.5	20
QACA	0.74	0.66	0.67	0.64	0.63	0.65	0.65	0.61	0.56	0.50	0.49	0.59	0.60	0.64	0.65	0.67	0.53	0.57	0.54	0.58	0.54	0.52
Rank of QACA (Rs)	1	+	2.5	8.5	10	6	9	11	16	21	22	13	12	8.5	6	2.5	19	15	17.5	14	17.5	20
Sum of Ranks (R ₁ + R ₂ + R ₃)	7.5	13.5	6.5	20.5	21.5	15.5	20	29	41	62.5	99	46.5	39	35	26	22	46	40	48	40	51	59
Ultimate Rank	2	3	1	9	2	1	10	10	15	21	22	16	12	11	6	8	18	13.5	17	13.5	19	20
																						8

Table 3 : Motaal's Test

Source : Compiled and computed from Capitaline Corporate Database of Capital Market Publishers (I) Ltd., Mumbai.

Year	Liquidity Rank (Based on Motaal's Test)	ROCE (%)	Profitability Rank (Based on ROCE)
1994-95	2	17.31	19
1995-96	3	20.81	14
1996-97	1	19.45	17
1997-98	6	16.51	20
1998-99	7	14.43	22
1999-00	4	15.4	21
2000-01	5	20.59	15
2001-02	10	17.6	18
2002-03	15	20.19	16
2003-04	21	29.50	13
2004-05	22	49.7	6
2005-06	16	54.04	5
2006-07	12	69.37	2
2007-08	11	80.43	1
2008-09	9	62.66	3
2009-10	8	62.58	4
2010-11	18	47.24	7
2011-12	13.5	32.19	12
2012-13	17	44.41	9
2013-14	13.5	46	8
2014-15	19	43.89	11
2015-16	20	44.36	10

Table 4 : Analysis of Relationship between Liquidity and Profitability

Spearman's rank correlation coefficient between liquidity and profitability (R_{LP}) is -0.48, which is not found to be significant at 5% level.

Source : Compiled and computed from Capitaline Corporate Database of Capital Market Publishers (I) Ltd., Mumbai.