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WORKING CAPITAL AND PROFITABILITY TRADE-OFF IN FMCG INDUSTRY: A STUDY OF SELECTED COMPANIES

Reeti Gaur
Research Scholar
Department of Commerce
Punjabi University, Patiala
reetz.gaur@gmail.com

Dr. Rajinder Kaur
Professor, Department of Commerce
Punjabi University, Patiala

Abstract :

Purpose: The paper seeks to empirically investigate the flow of working capital management in the companies. It also examines the impact of working capital management on profitability.

Design/Methodology/Approach: The analysis is based on 6 companies of FMCG industry (as per BSEFMCG Index) in India. In this respect the data is collected for a period of 13 years, i.e. 2001-02 to 2013-14 from CMIE database. Descriptive statistics, Karl Pearson correlation, regression analysis and ANOVA have been used.

Findings: It was found that the selected companies in FMCG industry manage their working capital efficiently and maintain cash flow in the business. The companies have good credit worthiness among suppliers as they are provided with sufficient payment time. Further, it was found that there exists a significant negative relationship between key performance indicators for working capital management and profitability.

Implication: The findings suggest that the managers need to maintain a continuous watch on managing the financial flows of funds in order to optimize the working capital. The optimum working capital management will help the managers to increase credit worthiness and better relationship with suppliers and lenders.

Originality/Value: The paper addresses gap in the literature relating to working capital management of Indian FMCG companies.

Keywords : Operating cycle, Working Capital, Profitability, liquidity, firm value, FMCG companies.

INTRODUCTION :

An operational firm involves continuous in and out of funds in the business. A firm deploys its fund in two forms of capital: Fixed Capital and Working Capital. Fixed Capital is generally funds used for long-term purpose and are termed as fixed assets covering land, building, plant and machinery, vehicles, equipment, etc. These are retained in the business to earn profits and are exposed off when become obsolete. Working Capital, on the other hand is a circulating capital that supports the day-to-

day operations of the business. Working capital is of two types: Gross working capital, which is maintained in form of current assets. Current assets covering assets like cash balance, bank balance, debtors, inventories of raw material, work-in-progress and finished stocks, etc. Secondly, net working capital, which is the excess of current assets over current liabilities (creditors, bill payable, bank overdraft, etc.). The current assets are liquidated within a short period of time during the operating cycle of the industry and normally not exceeding one year.

Though an operational and successful business requires both the capital for its smooth running, yet working capital nowadays is receiving serious attention from the managers of small as well as large scale business concern. The reason for this is that half of the capital of the concern, especially manufacturing concern is used as working capital. It is essential for every firm to maintain optimum working capital in the business in order to maximize their value.

WORKING CAPITAL MANAGEMENT

Many researchers and academicians have given evidence that to maximize the value of the firm; working capital plays a significant role in the firm. It becomes noteworthy that the objective of the managerial staff should be to manage its working capital well throughout the life of the firm. Working capital management involves managing the movement of the cash flows in the business as well as the current assets and liabilities throughout the year. The manager tries to maintain an optimum level of working capital so that firm does not suffer from shortage or excess deployment of funds and liquidity is maintained.

WORKING CAPITAL MANAGEMENT AND PROFITABILITY:

Working capital and profitability are at the two extremes for a corporate manager. Although, the primary goal of the corporation is to maximize profitability yet, working capital today also requires serious attention by present day's managers of every business concern. The managers of the companies need to formulate policies to have a trade-off between working capital and profitability. It means they must preserve readily available cash resources in the firm for conducting day-to-day operations of company without affecting profit earned. The efficiency of the manager to carry day-to-day business without affecting the profits is measured by the operating cycle. Working capital management is concerned with balancing between adequacy and inadequacy of the funds. An important decision of optimum working capital, i.e. to decide a trade-off between profit and working capital forms a basis for success of companies.

Since working capital and profitability are two major concerns for every business, the present study examines the efficiency of the firm's manager to manage the flow of working capital and the cause and effect relationship between working capital and profitability in the Indian FMCG industry.

LITERATURE REVIEW:

There are various research work related to the financial supply chain management and its impact on profitability. Some of the most relevant studies are reviewed below:

Chellasamy and Sumathi (2009) underlined the factors influencing profitability of the selected textile companies in Coimbatore District from 1995-96 to 2005-06. The study found that working capital was the only factor that highly influenced the valuation of companies' profitability. It is suggested that

besides working capital, the companies must also consider other influencing factors like short-term liquidity, turnover, long-term solvency, etc. while measuring the profitability of companies. Biger et al (2010) examined the relationship between working capital management and profitability of 88 American firms listed on the New York Stock Exchange for a period of 3 years from 2005 to 2007. The result disclosed a significant relationship between the cash conversion cycle and profitability. It was concluded that managers must create profits for their companies by handling correctly the cash conversion cycle and by keeping accounts receivables at an optimal level. Elham et al. (2012) aimed to study the effect of working capital management over the performance of 15 firms listed on the Tehran Stock exchange (TSE) during 2006 to 2009. The study found that there existed a significant negative relationship between working capital management and performance of selected firms. It was also found that there was an increase in collection period, payment period and net trading which lead to decrease in profitability of the firms. Kumar and Saluja (2012) evaluated the liquidity and profitability trade-off in Bharti Airtel Limited for a period of five years from 2005-06 to 2009-10. The findings disclosed that the profitability and liquidity of Bharti Airtel Ltd. had negative correlation with each other. It was suggested that for the continuous growth of any firm, there must be equilibrium between profitability and Liquidity. Bamal (2013) examined the relationship between working capital and profitability by comparing chemical industry and the pharmaceutical industry for 10 years from 2002 to 2011.The results depicted a significant relationship between working capital and profitability. Further, it was found that a major impact of working capital variables was on the profitability of chemical industry than those of the pharmaceutical industry. Bagchi and Khamrui (2014) made an attempt to investigate the effects of working capital management on profitability of Indian central public sector enterprises (CPSEs) for the ten year period from 2001-02 to 2010-11. The results demonstrated a negative relationship between firm's profitability and working capital management.

OBJECTIVES:

1. To empirically investigate the flow of working capital in the selected companies.
2. To examine the relationship of working capital management and profitability of selected companies.

HYPOTHESIS:

Based on the findings of the literature reviewed, following hypotheses are formulated:
H01: There is no difference in the working capital management of selected companies.
H02: There exists no significant relationship between net working capital cycle and ROA.

SAMPLE SELECTION:

The analysis is based 6 FMCG companies selected from the BSEFMCG Index of Bombay Stock Exchange of India. There are 12 companies belonging to the FMCG industry in the BSEFMCG Index of Bombay Stock Exchange of India. The selection is based on the availability of data and covers 50% of the companies in the BSEFMCG Index of Bombay Stock Exchange of India

DATA COLLECTION SOURCES:

The present study entitled “WORKING CAPITAL AND PROFITABILITY TRADE-OFF IN FMCG INDUSTRY: A STUDY ON SELECTED COMPANIES” is based on secondary data collected from

annual reports of the selected FMCG companies, prowess database of CMIE, journals, magazines, website of the National Stock exchange and Bombay Stock Exchange of India and other related papers. The data is collected for 13 years commencing from FY2001-02 to FY2013-14.

VARIABLES:

The purpose is to examine the flow of working capital in selected FMCG companies in India. Since the operating cycle is one of the measures for working capital management, following variables viz. Gross working capital cycle, net working capital cycle, days of sales outstanding (Debtor), days of purchases outstanding (Creditor), days of inventory outstanding (Raw material cycle, work-in-progress cycle and finished good cycle) are selected. The net working capital cycle as the independent variable return on assets (ROA) as dependent variables are taken to study the relationship of working capital management and profitability.

Tools used: Descriptive statistics- Average, Standard Deviation, Coefficient of variation, Minima and Maxima. Correlation, Regression and ANOVA are used to examine the relationship of working capital management and profitability.

FINDINGS:

1. Findings related to flow of Working Capital based on descriptive statistics: The analysis presented the following results:

1. The raw material cycle depicts number of days the raw material outstanding in the business which should be low. More time length of raw material cycle signifies idle inventory and remained unsold. As per the table 1, ITC Ltd. has a more time length of raw material cycle of 177 days approx. and Colgate-Palmolive India Ltd. have a less time length of 22 days approx.
2. The Work-in-progress cycle depicts number of days the work-in-progress outstanding in the business which should be low. More time length in a work-in-progress cycle signifies huge inventory remained utilized and unsold. As per the table 1, Dabur India Ltd. have more time length in a work-in-progress cycle of 19 days approx. and Colgate-Palmolive India Ltd. have a less time length of 3 days approx.
3. The finished good cycle depicts number of days the finished good outstanding in the business which should be low. More time length in finished good cycle indicates huge inventory and lesser sales. As per the table 1, ITC Ltd. have more time length in finished good cycle of 53 days approx. and Marico Ltd. has less time length of 25 days approx.
4. The Debtors cycle depicts the days outstanding for the sale of goods which should be low. More time length of debtors' cycle depicts ample time is given to the customer for making payment of goods sold to them. As per the table 1, Dabur India Ltd. has more time length in debtor cycle of 21 days approx. and Nestle India Ltd. has less time length of 5 days approx.
5. The gross working capital cycle depicts number of days the gross working capital outstanding in the business which should be low. More time length of gross working capital cycle means huge inventory or/and days outstanding of sales. As per the table 1, ITC Ltd. has a more time length of gross working capital cycle of 245 days approx. and Colgate-Palmolive India Ltd. has less time length of 62 days approx.

6. The creditor's cycle depicts the days outstanding for the purchases made from suppliers which should be high. More time length of creditors' cycle implies abundant time is provided by suppliers for making payment and good credit worthiness of the buyer. As per the table 1, Hindustan Unilever Ltd. have more time length of raw material cycle of 95 days approx. and Marico Ltd. has less time length of 44 days approx.
7. The net working capital cycle depicts number of days the net working capital outstanding in the business which should be low. More time length in net working capital cycle symbolizes huge sold and unsold inventory, lesser sales and less time for making payment to suppliers. As per the table 1, ITC Ltd. had more time length in net working capital cycle of 182 days approx. and Colgate-Palmolive India Ltd. have a less time length of -21 days approx.
8. The study disclosed that ITC Ltd. has larger cycle, i.e. capital is tied up in the business for more time, whereas Colgate-Palmolive India Ltd. have negative net working capital cycle i.e. buyer doesn't make payment to suppliers until it receives payment from customers. This symbolizes the credit worthiness of the buyers towards suppliers.
9. The analysis further showed that there is hardly any variation in the components of the working capital cycle as the coefficient of variation (C.V.) is below 50% for majority of selected companies. The results concluded that there existed a significant difference in the financial flows in the supply chain of the selected companies.

2. Findings related to the relationship between Working capital management and profitability based on correlation, regression and F-test :

The analysis presented the following results based on correlation, regression and F-test:

1. For Colgate-Palmolive India Ltd., the correlation value is -0.90 and R square value is 0.82. The results showed that with a 1 % change in the net working capital cycle, there are 52% change in the profitability. There is a significant negative relationship between net working capital cycle and return on assets (ROA).
2. For Dabur India Ltd., the correlation value is -0.88 and R square value is 0.78. The results showed that with a 1 % change in the net working capital cycle, there is a 14 % change in the profitability. There is a significant negative relationship between net working capital cycle and return on assets (ROA).
3. For Hindustan Unilever Ltd., the correlation value is -0.69 and R square value is 0.47. The results showed that with a 1 % change in the net working capital cycle, there is a 26 % change in the profitability. There is a significant negative relationship between net working capital cycle and return on assets (ROA).
4. For ITC Ltd., the correlation value is -0.16 and R square value is 0.02. The results showed that with a 1 % change in the net working capital cycle, there is a 1 % change in the profitability. There is an insignificant negative relationship between net working capital cycle and return on assets (ROA).
5. For Marico Ltd., the correlation value is -0.29 and R square value is 0.08. The results showed that with a 1 % change in the net working capital cycle, there is a 3 % change in the profitability. There is an insignificant negative relationship between net working capital cycle and return on assets (ROA).

6. For Nestle India Ltd., the correlation value is 0.20 and R square value is 0.04. The results showed that with a 1 % change in the net working capital cycle, there is a 9 % change in the profitability. There is a negative relationship between net working capital cycle and return on assets (ROA) but this relation is insignificant.

CONCLUSION:

The analysis made it clear that working capital requires serious attention by the present day's managers of every business concern. A firm needs to maintain a trade-off between working capital and profitability. An optimum working capital need to be decided during the year to avoid the problem of shortage and excess of funds and to maximize their value.

It was found that the selected companies in FMCG industry manage their working capital efficiently and maintain continuous flow of funds in the business. The analysis disclosed that selected FMCG companies had a significant difference in the flow of working capital. Further, ITC Ltd. has larger time length, i.e. funds were tied up in the business for long hampering its profitability. On the other hand, Colgate-Palmolive India Ltd. having negative net working capital cycle proved that the buyer doesn't make payment to suppliers until it receives payment from customers. This signifies the credit worthiness of buyers towards suppliers. Correlation and regression results demonstrated a significant negative relationship between indicators of working capital management and profitability for only Colgate-Palmolive India Ltd, Dabur Ltd. and HUL. To conclude, the managers had suggested that they need to focus of the operating cycle of the companies and should make efforts to reduce the net working capital cycle in order to maximize the profit.

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Annexure :

Table 1

Descriptive statistics

Table No 6. Comparison of Total inflow &outflow of Goods (USDMillion)

	Measurement	Raw material cycle	WIP cycle	Finished goods cycle	Debtors	Creditors	Gross working capital cycle	Net working capital cycle
Colgate-Palmolive India Ltd.	Average	22.15	2.69	29.08	7.93	82.55	61.84	-20.71
	Standard Deviation	6.31	0.84	3.75	5.36	7.06	13.60	15.71
	C.V.	28.51	31.43	12.90	67.56	8.55	21.99	-75.85
	Minima	13.48	1.89	23.06	1.83	71.78	40.84	-50.32
	Maxima	32.84	4.64	35.51	19.31	93.07	86.75	11.49
Dabur India Ltd.	Average	56.31	19.20	30.37	21.28	60.97	127.16	66.19
	Standard Deviation	19.45	6.86	7.80	7.05	6.13	36.53	40.42
	C.V.	34.54	35.75	25.69	33.13	10.05	28.73	61.07
	Minima	36.55	6.28	21.69	10.49	40.17	81.37	18.71
	Maxima	99.58	27.89	48.65	40.31	69.75	198.31	150.62
Hindustan Unilever Ltd.	Average	54.35	5.98	31.98	14.92	95.37	107.23	11.86
	Standard Deviation	11.28	3.53	3.53	3.10	8.88	14.55	13.16
	C.V.	20.75	59.14	11.04	20.80	9.31	13.57	110.98
	Minima	34.06	2.05	27.62	10.33	74.99	81.71	-12.59
	Maxima	69.97	12.13	36.80	20.42	109.78	130.01	35.49
ITC Ltd.	Average	177.96	3.03	52.81	11.46	63.51	245.26	181.76
	Standard Deviation	18.30	1.40	6.05	1.43	12.70	20.96	27.49
	C.V.	10.28	46.16	11.46	12.52	19.99	8.55	15.12
	Minima	150.88	1.33	44.40	8.45	52.02	218.23	126.57
	Maxima	202.02	5.93	64.71	13.41	91.66	281.44	226.87
Marico Ltd.	Average	45.75	14.67	25.23	14.77	43.93	100.41	56.48
	Standard Deviation	10.90	6.95	6.38	2.39	10.41	22.97	26.67
	C.V.	23.82	47.36	25.29	16.18	23.70	22.87	47.22
	Minima	32.84	7.01	17.29	10.62	34.94	75.64	20.66
	Maxima	61.23	28.52	36.57	20.45	65.02	137.02	92.57
Nestle India Ltd.	Average	29.17	8.14	26.82	4.93	48.15	69.06	20.91
	Standard Deviation	2.61	2.40	2.66	0.72	2.37	7.45	8.97
	C.V.	8.95	29.42	9.93	14.67	4.93	10.79	42.90
	Minima	25.47	5.15	22.76	3.63	44.02	59.01	9.08
	Maxima	37.11	13.33	31.71	6.30	51.92	87.77	43.75