



Working Capital Management of Dishman- Pharmaceuticals Chemicals Ltd.

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Abstract: *Through this research paper the research has tried to make the comparative analysis of the Dishman Pharmaceutical and Chemical Company and tried to find out the effectiveness of the working capital management in the organization as whole. Researcher has tried to make the analysis by using different tools like ratio analysis statistical tools by using the secondary datas of the firm. The researcher has utilized different techniques and tools too to make the analysis effective like Linear Correlation, measures of the dispersion. The findings of this research identifies that generally management of the working capital of the firm depends on the viability and requirement of the management. Throughout this research paper the researcher has utilized different ratios for justifying the maintenance of the working capital of the firm and organization as well. Researcher has also utilized the statistical measurement for making the enhancement of the findings of the research throughout the research.*

Keywords: *Working Capital, Current Ratio, Liquidity, Dishman Pharmaceutical and Chemical Ltd..*

I. INTRODUCTION

Date of Establishment	1983
Revenue	79.8353 (USD in Millions)
Market Cap	13206.0863064 (Rs. in Millions)

History:

The company was incorporated on June 29, 1983 as Dishman Pharmaceutical and Chemicals Pvt Ltd. It became a deemed public company w.e.f April 1, 1996 and the word 'private' was deleted during February, 1997. The company was renamed as Dishman Pharmaceuticals and Chemicals Ltd and a fresh certificate of incorporation with the aforesaid name was issued on October 12, 1999. The company commenced the production of Quaternary Ammonium or Phosphonium Compound (QUATs) during 1989 and commence first export order to Europe in 1990. The company got leadership position in QUATs during 1995. It commence forward integration into bulk drug intermediates and commenced its Unit-I of Bavla facility. During 2002-03, the entire Bavla unit converted into 100 per cent EOU.

II. BACKGROUND

The company entered the capital market with a public issue of 34.34 lakh equity shares of Rs 10 each with a price band of Rs 155 to Rs 175 on March 29, 2003. The issue was through the 100 per cent book building process Enam Financial Consultants Pvt Ltd and IL&FS Invests Mart Ltd were the book running lead managers. The issue received good response and was oversubscribed by 39.5 per cent. The company fixed the price of share at Rs 165 each and collected total amount of Rs 60.09 crore.

Dishman is a research driven company in synthetic chemistry which includes finding the optimized synthetic routs using commercially available raw materials, yield improvement to increase the profitability. The company commenced production of QUATs from its Naroda facility during 1989. QUATs are bulky molecules with molecular weight ranging from 300 to 500. It introduced bulk actives and pharmaceuticals intermediates during 1995-96 and ventured into quaternary phosphonium compounds during 1997. It has set up a modern production facility at Bavla near Ahmedabad and currently the plant is having eight production units.

The company has commenced manufacturing of intermediates and APIs for MNCs in Europe and North America. The company is able to cater to the outsourcing needs of MNCs. Its long-standing presence in the QUATs market has facilitated a brand-building exercise in the European and North American chemicals and pharmaceuticals markets.

III. PRESENT ACTIVITIES

The company's consolidated net sales for the year ended March 2013 increased by 13.2 per cent to Rs 1,272 crore from Rs 1,124 crore in the previous year. CRAMS segment registered a turnover of Rs 813.25 crore compared to Rs 717.91 crore. Other segment which includes bulk drugs, intermediates, Quats and speciality chemicals and outsourced /traded goods registered growth



of 13 per cent to Rs 458.96 crore from Rs 406.21 crore. CRAMS is its largest business segment which caters to the requirements of MNCs.

Its net profit went up sharply by 76.7 per cent to Rs 100.29 crore from Rs 56.76 crore. EPS improved to Rs 12.43 from Rs 7.03 in the last year. The company maintained equity dividend at 60 per cent for the year 2012-13.

At present it has eight-multipurpose production units at Bavla and it has set up manufacturing and R&D facilities in Switzerland, UK and Netherlands.

During the last two years, Dishman has modified its focus and is now concentrating on a larger number of midsize contracts rather than concentrating only on a few large MNCs. The idea is to de-risk the business model to the maximum extent and also fill up the available plant capacities. With this change, the company received higher orders during 2012-13. The company's Hi-Potency - Unit 9 at Bavla has commenced operations during 2012-13 and is capable of handling extremely high potency molecules with a specific focus on the therapeutic segments of oncology, steroids, etc. Several companies have already completed safety studies, and regular business has started. This unit contributed revenue of US\$4 million. The company received orders to the tune of US\$10 million for this unit and set to achieve top line of around US\$25-30 million over next 2 to 3 years. This is a high margin segment which will also help in improving the bottom line.

The company's Vitamin D3 unit has also commenced operations. This is a forward integration facility and adds value to the Vitamin D3 business that was acquired from Solvay a few years ago in Netherlands. This company is engaged in production of cholesterol, the key raw material for Vitamin D3. A part of the cholesterol is now being converted into Vitamin D3 resin in the Bavla, India facility of the company and the said resin is sent back to the Netherlands for its formulation into various end use like value added cattle feed, cosmetics, etc. Currently, this plant is operating at around 50 per cent capacity utilization and the target is to ramp up its capacity utilization in next couple of years so as to reach the optimum capacity.

During 2012-13, the company has activated a new vertical viz, Generic API and planning to file 25-30 DMFs in the regulated market. The company is focusing more on regulated market for higher margins. It has appointed separate marketing team for this purpose and has also filed about 5 DMFs in the regulated markets against specific firm orders entered into with the pharma companies. Going forward this vertical has the potential of generating an annual turnover of Rs 250 crore over next 3 to 4 years.

The company's subsidiary viz., Carbogen Amcis Switzerland has started performing quite satisfactorily during the year under review. This subsidiary has reported sales of around Rs 508 crore and EBDITA in the region of 16 per cent. The other marketing subsidiaries viz. Dishman Europe, Dishman USA as well as Dishman Japan have operated quite satisfactorily during 2012-13.

In China, the company is looking out for a strategic sell out of the Dishman China facility to a global interested party who could either constitute a joint venture or who could effectively takeover the said subsidiary at reasonable price.

The company is planning to exit from SEZ unit in a viable manner and planning to cancel the long term lease in respect of the leasehold land.

IV. RESEARCH AND DEVELOPMENT (R&D)

The company has created R&D center comprising three floors and having total built up area of 4,500 sq.mtrs. This R&D center houses a technical library, 8 R&D laboratories, a formulation development laboratory, an analytical development department, a kilo lab and a cGMP compliant pilot plant. It has integrated its ISO-14001 EMS, ISO-9001 QMS and ISO-18001 OSHA management systems.

V. DISHMAN - GLOBAL PARTNERSHIP SOLUTIONS

Dishman is the global outsourcing partner for the pharmaceutical industry offering a portfolio of development, scale-up and manufacturing services. The products and services offered span customers' needs from chemical development to commercial manufacture and supply of active pharmaceutical ingredients. Dishman has a relationship driven business model that improves its customers businesses by providing a range of solutions at locations in Europe, China and India. Our offer delivers the best of both worlds: western expertise in speed, flexibility, innovation and rapid material provision new world expertise in process optimization, robust large scale processes and secure economic commercial supply. Our commitment is to deliver cost-competitive technical excellence and to be a reliable partner to our customers, protecting their interests as if they were our own. Dishman is headquartered in Ahmedabad, India and is listed on the Bombay Stock Exchange Ltd. and The National Stock Exchange of India Limited.



VI. PRODUCTS AND SERVICES

Highly Potent API Services

The Dishman Group offers unparalleled capability in scale-up, development and commercial manufacture of highly potent compounds and vitamins.

The Dishman Group provides state-of-the-art containment services. All of our facilities operate to current Good Manufacturing Practice (cGMP) and can produce material for preclinical testing, clinical trials and commercial use.

In 2012 our facilities successfully underwent a number of inspections from recognized Health Authorities: the facility in The Netherlands, was inspected by the US Food and Drug Administration (FDA) and the Dutch Medicines Evaluation Board (MEB); our Swiss subsidiary CARBOGEN AMCIS was inspected by Swiss Medic, the FDA, by the French Health Authorities (ANSM) and received an accreditation as foreign manufacturer for Japanese market; and our facilities in India were inspected by the FDA, the Australian Therapeutic Goods Administration (TGA) under a Mutual Recognition Agreement (MRA) with the European Directorate for the Quality of Medicines & HealthCare (EDQM), the World Health Organization (WHO) and the Korea Food and Drug Administration (KFDA).

All of our containment facilities are designed based on a containment concept utilizing barrier isolation technology as well as a strict zone concept with pressure cascades, airlocks and access controls. This allows the safe handling of highly-potent compounds of all categories including cytostatics/cytotoxics.

We offer services starting from laboratory scale for process research and development purposes up to large scale manufacturing on 8000 L scale including category IV compounds ($OEL < 1\mu\text{g}/\text{m}^3$), the highest category in our categorization system.

To support the Active Pharmaceutical Ingredient (API) development process through all stages, a variety of high-containment analytical and purification capabilities complement the chemistry service portfolio.

VII. REVIEW OF LITERATURE

A survey conducted by *Gitman, Moses, and White* reveals that Lockboxes were widely used to accelerate the collection process. Virtually all large firms use lockbox systems as do a large percentage of smaller firms. This somewhat lower use by smaller firms is a reflection of the costs versus the gains from lock box systems. The survey farther reveals that to bring collected funds together for use, over one-half of all large firms use concentration banking, with wire transfers and depository transfer checks being the primary means of moving funds from one bank to another. The survey was also extended to management of disbursement. The survey says the primary tools for the management of cash outflows are zero-balance accounts and centrally controlled disbursing. Central control of disbursements is the major tool for about 70 percent of large firms.

The vast majority of larger firms use zero-balance accounts, although smaller firms use them less frequently. [see *Gitman, Managerial Financial Management, 8th Edition, Thomson, 1998, pp. 350-390*]

Another survey by *R. Kamath, S. Khaksari, H. Meier, and J. Winklepleck* reveals that almost all large firms invest surplus cash in money market instruments. The most popular investment is commercial paper, certificates of deposit, repurchase agreements, treasury securities, and bankers acceptances. [see *Kamath R., S. Khaksari, H Meier, and J. Winklepleck, "Management of Excess Cash: Practices and Development," Financial Management (Autumn 1985), pp. 70-77*]

Another finding of *Gitman & others* survey was that almost all-large firms prepare cash forecast.

Similar finding can also be obtained from *Rappaport and others survey (1984, pp.45-64)*. In particular the survey indicates that a substantial number of firms keep a stock of short-term investments for precautionary reasons.

Another conclusion of the report was that many firms also borrow to address unanticipated cash needs, either directly from banks or through the commercial paper market. The survey also indicates that in general, quantitative and statistical models are in wide use in working capital management. The models are in use by less than 10 percent against of large firms. Further, smaller firms do not use them all. [see *Lawrence Gitman, D. Keith Forrester, and John R. Forrester, "Maximizing Cash Disbursement Float," Financial Management (summer 1976), p 15-24.*]

A questionnaire survey by *Smith and Sell* [see "Working Capital Management in Practices" published in 1978] indicates that 68% of the respondent firm used either cost balancing models or computerized inventory control. The survey evidence reports that the basic models of inventory management are widely used.



A survey by *Besley and Osteryoung* reveals that the vast majority of the firm sells output via trade credit, 87% of the manufacturing firms reported that 91 to 100 percentages of their sales are made on a credit basis. [see *Besley and Osteryoung*, “Account Receivable Management,” pp. 79-95]

The Survey by *Hill, Wood & Sorenson* indicates that a firm once set, rarely consider changes in its terms of sale. They also found that when competitors change terms, other sellers typically will “follow the leader”. [see N. Hill, “A Generalized Cash Flow Approach to Short-term Financial Decision,” *Journal of Finance*, Vol.38, No. 2 (May 1983), pp. 349-60]

Another survey by *Scherr* reveals that firms use the traditional ‘5 C’s of Credit’ to make judgmental decisions on credit applicants, though a substantial fraction use some type of credit –scoring approach. However, there is also survey evidence that firms can and do make reasonably accurate estimates of default probability, delinquency, and discount rates. [see F. Scherr, “Estimating and Using Failure-Forecasting Functions: Some Problems and Some Proposed Solution,” *Baylor Business Studies* (January 1982), pp.16]

Working Capital Management Practiced in Pharmaceutical Companies 77 Published survey results from the mid-1970s showed aging fractions to be the most popular method of monitoring customer payment patterns at the time [see *Smith and Sell*, “Working Capital Management in Practice,” pp.55 and 69]

In 1983 *N. Hill, W. Sartoris and D. Ferguson* conducted a survey of the accounts payable managers of 1,479 firms of various sizes in various industries: 180 responses were received. A major thrust of this survey was obtaining information on firm’s decision regarding two methods of obtaining finance from accounts payable; skipping the discount and stretching accounts payable. The survey revealed that the vast majority of firms generally take the discount. In deciding whether to take the discount, the primary criterion of most firms is the amount of the discount. This makes good financial sense, since the amount of discount (along with the delay period from the discount date to the due date) determines the cost of skipping as a source of financing. [See N. Hill, W. Sartoris, and D. Ferguson, “Corporate Credit and Payable Policy: A Survey Size and Industry Effects,” paper presented at the Financial Management Association’s 1983 Annual Meeting]

R.S. Chadda (1964): Study had been made on inventory management practices of Indian companies. The analysis suggested application of modern scientific inventory control techniques like operations research. These modern scientific techniques furnish opportunities for the companies, Companies can minimize their investment in inventory but there is continuous flow of production. He argued that industrially advanced countries, like, USA, were engaged in developing highly sophisticated mathematical models and techniques for modernizing and redefining the existing tools of inventory investment.

The other financing strategy in connection with accounts payable is the stretching of payables beyond the due date. *Hill, Sartoris and Ferguson’s* survey revealed three important factors that are considered by firms in deciding whether to use this strategy; the value of using the funds (that is the cost of the funds relative to other funding sources), the effects on relationships with supplies and the impact on the firm’s credit rating.

Another survey by *Farragher* on 33 firms reveled that most of the firm uses the traditional form of financing. The researchers had also found that there is a growing interest among the firm in using Factoring as an alternative means of financing. [See E. Farragher, “Factoring Account Receivable,” *Journal of Cash Management* (March/April 1986), Page 39]

National Council of Applied Economic Research (NCAER 1966) Conducted a study in 1966 regarding working capital management of three industries namely cement, fertilizer and sugar.

This study mainly devoted to ratio analysis of composition, utilization and financing of working capital for the period of 1959 to 1963. The study reveals that inventory constituted a major portion of working capital i.e. 74.06 per cent in the sugar industry followed by cement industry (63.1%) and fertilizer industry (59.58%). It was observed that inventory had not managed properly. So far as the utilization of working capital was concerned, cement and fertilizer industry had better implementation of working capital. The sugar industry had huge accumulation of stocks so there was inefficient utilization of working capital heavily.

VIII. RESEARCH QUESTIONS

1. To know the working capital management of Dishman-Pharmaceuticals Chemicals Ltd.
2. The variations of maintaining the working capital of the firm since last five years.
3. To examine the relationship between the liquidity and profitability of the firm.

IX. SCOPE OF THE STUDY

The scope of the study is limited for the firm and organization of Dishman-Pharmaceuticals Chemicals Ltd only and related to the last five years datas is the duration period of the research.

**X. SIGNIFICANCE OF THE RESEARCH STUDY**

The research study will be implied for the pharmaceutical companies for the future study also. The major impact of this study will be implied in the pharmaceutical industry as whole and hence indirect or directly it will give the impact to the Economy of the country also.

XI. OBJECTIVES OF THE STUDY

1. To study the current working capital position of Dishman-Pharmaceuticals Chemicals Ltd
2. To study the current credit tendency of Dishman-Pharmaceuticals Chemicals Ltd.
3. To study the current trend of the working capital of Dishman-Pharmaceuticals Chemicals Ltd

XII. HYPOTHESIS OF THE STUDY

The researcher has applied last five years data of the study of Dishman-Pharmaceuticals Chemicals Ltd. for the research. The following hypothesis will be applied for the research.

H_0 = There is no significance difference between the liquidity and profitability of the Dishman-Pharmaceuticals Chemicals Ltd

H_1 = There is a significant difference between the liquidity and profitability of the Dishman-Pharmaceuticals Chemicals Ltd.

XIII. RESEARCH METHODOLOGY

Sample Design: On Judgmental Basis

Source of Data: Annual Report of the Company, Financial Web Sites like moneycontrol.com

Types of Research Data: Secondary Data

Duration of Data: 2009-10 to 2013-14

Statistical Tool: For the analysis the researcher has utilized the ratio analysis, standard deviation CO-efficient of Variance.

XIV. RESULTS AND ANALYSIS**Table-1**

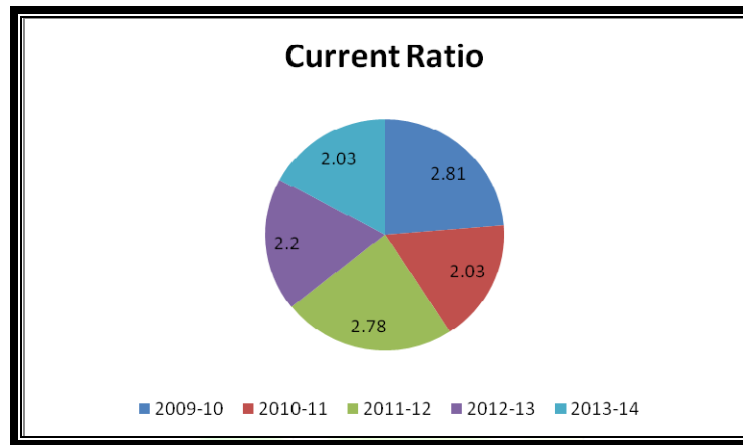
Particulars	Amt in Crore in INR					
	Current Assets	2009-10	2010-11	2011-12	2012-13	2013-14
Stock		99.75	124.24	119.13	127.76	133.86
Debtors		70.24	131.76	96.46	62.79	69.42
Cash Balance & Bank Balance		1.80	0.93	6.45	6.86	11.26
Fixed Deposits		2.48	3.38	0	0	0
Advances		202.74	197.99	306.24	379.22	439.52
	Total Current Assets	377.01	458.3	528.28	576.63	654.06
	Current Liabilities					
Current Liabilities		118.82	216.33	320.58	291.92	306.68
Provision		15.14	16.46	17.78	22.67	25.36
	Total Current Liabilities	133.96	232.79	338.36	314.59	332.04
	Net Working Capital Required	243.05	225.51	189.92	262.04	322.02
	Current Ratio	2.81	2.03	2.78	2.20	2.03

Table-2

Variable	% of Current Assets				
	2009-10	2010-11	2011-12	2012-13	2013-14
Stock	26.46%	27.11%	22.55%	22.16%	20.47%
Debtors	18.63%	28.75%	18.26%	10.89%	10.89%
Cash Balance & Bank Balance	0.48%	0.20%	1.22%	1.19%	1.72%
Fixed Deposits	0.66%	0.74%	0%	0%	0%
Advances	53.77%	43.20%	57.97%	65.76%	67.19%

Table-3

Variable	% of Current Liabilities				
	2009-10	2010-11	2011-12	2012-13	2013-14
Current Liabilities	88.70%	92.93%	94.75%	92.79%	92.36%
Provisions	11.30%	7.07%	5.25%	7.21%	7.64%

**Table-4**

Year	Working Capital	Current Ratio	Liquid Ratio	TATR	WCTR	WCSR
2009-10	243.05	2.81	2.07	0.34	1.45	0.69
2010-11	225.51	2.03	1.38	0.35	1.86	0.54
2011-12	189.92	2.78	1.21	0.42	2.44	0.41
2012-13	262.04	2.20	1.43	0.41	1.85	0.54
2013-14	322.02	2.03	1.57	0.39	1.47	0.68
Arithmetic Mean	248.508	2.37	1.532	0.382	1.814	0.572
Std. Dev.	48.93	0.39	0.33	0.04	0.40	0.12
C.V.	19.69%	16.64%	21.35%	9.2%	22.16%	20.29%

Note: Basic terms in the above table are;

TATR: Total Assets Turnover Ratio

WCTR: Working Capital Turnover Ratio

WCSR: Working Capital to Sales Ratio

XV. FINDINGS

- The average size of working capital of the firm since last five years is 248.51 crore which shows the sound situation of the firm.
- The average current ratio of the firm since last five year is 2.37 in approx which is sound and better as reviews of the Tondon committee.
- The liquid ratio of the firm also shows the better position of the firm for short term future also.
- The company's result shows on an average of 9% return on the investment of the current assets which shows the poor result of the firm and shows the ineffective output of the current assets.
- The average working capital has been utilized from the generation of revenue at only 18% which shows dissatisfactory result.

XVI. CONCLUSION

- As from the viewpoint of the researcher, the company is maintaining enough working capital as to be standardized by Tondon committee. But if we talk about the return of the invested made by the company in the working capital, it seems to be little bit wretched position for the company as only 9.2% return could be generated by the firm from its investments in the working capital.
- The return of the company of the investments through working capital also does not generate the efficient output as compare to the expectancy of the industry as whole.
- The company maintains the level of working capital and the level of current ratio with the expected performance level as idealized by Tondon committee.

XVII. LIMITATIONS OF THE STUDY

- The study has been done only of the datas of last five years. No past records have been included.
- The study is based on strictly secondary data and no primary datas have been included in the study.
- The study has been conducted only of the single unit and the results will be affecting only to the single firm or unit.



- The researcher has utilized the financial and company website for his research so the level of trustworthiness depends upon the datas those have been provided in the said mentioned web sites

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