

A Study on Management of Cash & Cash Equivalent in Co-operative Sugar Industry

Jyothi Vashappanavar¹, Prof Prayag Gokhale²

¹Student of MBA Dept, KLE Dr MSSCET Department of MBA, Affiliated to Visvesvaraya Technological University Belagavi, Karnataka, India

²Asst Prof. Dept of MBA, KLE Dr MSSCET Department of MBA, Affiliated to Visvesvaraya Technological University Belagavi, Karnataka, India

Abstract: - Cash is a vital firm asset in spite of the fact that coin and paper currency can be analyzed & taken care of the real piece of the cash of mainly implementation of bank financial report which tells to belongings to cash as unrelated to tangible property. The main aspect of cash management is to maintain an optimum cash balance. Efficient cash management processes are pre-requisites to execute payments, collect receivables and manage liquidity. Hence from the above recommendation may suggest that in maximum sense trade implies cash in hand and at the bank so far in the more extensive sense it is the deposit in banks, currency, bank draft. This paper aims to study the optimum cash balance required by the company by applying Baumol's model.

Keywords: Cash Management, Baumol's Model, liquidity, Receipts and Payments.

I. INTRODUCTION

“Cash Management refers to the management of cash balance and the bank balance just including to short terms deposits. Cash Management purpose, the term cash is utilized out this more general sense that is it covers cash, cash equal, and resources which are promptly flexible into money”. Liquidity Management guarantees that satisfactory levels of capital are easily reached to a firm for a short-term requires, for example, stock buys. A respectable cash management program can essentially impact the helpfulness of predations and these can similarly lower common expenses. Main

purpose of Cash Management outline is to reduce surprises accepted with money by assembly regularly cash requirements at the lower cost possible. The main aspect of cash management is to maintain an optimum cash balance. Efficient cash management processes are pre-requisites to execute payments, collect receivables and manage liquidity. Since it is a vital component of working capital, optimum cash balance helps in maintaining adequate working capital for smooth working of the organization.

II. OBJECTIVES

- To evaluate the optimum cash balance using trial and error method and Baumols model.
- To calculate cash budget for the year 2015-2021.
- To prepare cash flow statement for 2017-2019.

III. METHODOLOGY

In order for analysis of study is gathered through secondary data such as

- Company's annual reports from 2015-2017.
- Published books, journals and internet.
- Statistical tool- MS-excel.

IV. RESULTS

Table 4.1: Cash Flow Statement for the year 2016, 2017 & 2018

PARTICULARS	2016	2017	2018
CASH FLOW FROM OPERATING ACTIVITIES			
Net Profit	1,31,96,772.58	1,05,23,778.94	78,50,785.30
Transfer to reserve fund	-	6,01,650.00	12,03,300.00
Increase in current liabilities	8,63,55,485.83	-16,84,95,859.67	-42,33,47,205.17
Increase in sundry crs	86,23,711.20	51,95,524.42	17,67,337.64
Increase in deposit liability	-	15,07,38,811.39	30,14,77,622.78
Depreciation	3,81,87,579.00	3,86,01,948.51	3,90,16,318.03
Increase in current assets	-27,22,87,492.00	17,80,83,944.85	62,84,55,381.70
Preliminary exp	45,20,513.00	45,20,513.00	45,20,513.00

TOTAL	-9,05,43,792.89	6,21,39,456.73	56,09,44,053.28
CASH FLOW FROM INVESTING ACTIVITIES			
Increase in Building	-2,13,72,216.50	-19,35,152.00	-1,75,01,912.50
Increase in plant & machinery	-2,25,40,274.70	-2,36,35,999.20	-2,47,31,723.70
Increase in other assets	-1,28,25,457.43	-79,65,520.24	-31,05,583.05
Increase in investment	-30,02,000.00	-1,10,10,000.00	-1,90,18,000.00
TOTAL	-5,97,39,948.63	-4,45,46,671.44	-2,93,53,394.25
CASH FLOW FROM FINANCING ACTIVITIES			
Increase in share capital	5,57,64,677.00	1,11,19,000.00	3,35,26,677.00
Increase in loans	12,51,76,787.00	-18,61,24,724.00	-49,74,26,235.00
TOTAL	18,09,41,464.00	-17,50,05,724.00	-53,09,52,912.00
Net Increase/ Decrease in Cash	-2,01,915.02	2,17,916.00	6,37,747.03
Opening cash balance	9,69,390.00	7,67,475.00	9,85,391.00
Closing cash balance	7,67,474.98	9,85,391.00	16,23,138.04

Interpretation: Table 4.1 shows that cash flow statement for 2016, 2017 & 2018 is forecasted cash flow statement and it provides information about the changes in cash and cash equivalents of a business.

Table 4.2: Cash Budget for the year 2015, 2016, 2017 & 2018

PARTICULARS	2015	2016	2017	2018
CASH RECEIPTS				
Sales	58,73,02,297.62	87,28,37,389.75	1,29,49,78,551.93	1,62,60,49,000.74
Cash sales (2/3)	39,15,34,865.08	58,18,91,593.17	86,33,19,034.62	1,08,40,32,667.16
Recovery from drs (1/3)	19,57,67,432.54	29,09,45,796.58	43,16,59,517.31	54,20,16,333.58
Divided received	7,90,430.68	10,17,450.00	5,46,300.00	5,40,596.21
Total cash receipts (A)	1,17,53,95,025.92	1,74,66,92,229.50	2,59,05,03,403.86	3,25,26,38,597.70
CASH PAYMENTS				
Production cost	26,97,09,348.69	80,49,97,763.14	1,14,59,33,293.01	1,61,64,37,412.60
Rent	1,74,500.00	2,04,750.00	2,64,600.00	3,04,716.67
Misc exp	5,68,836.81	6,09,765.86	7,12,005.06	7,73,370.83
Office exp	1,31,811.00	1,86,816.00	4,76,327.34	6,09,501.12
Interest exp	11,04,17,292.20	6,40,87,002.00	10,43,46,972.00	8,68,80,101.87
Repairs & maintenance	14,05,708.26	34,88,574.71	25,03,755.97	35,64,060.69
Advertisement exp	2,88,780.00	5,60,212.00	19,29,765.00	25,67,237.33
Telephone, mobile & internet charges	3,64,626.00	3,24,337.26	4,56,470.00	4,73,655.09
Total cash payments (B)	38,30,60,902.96	87,44,59,220.97	1,25,66,23,188.38	1,71,16,10,056.19
CASH BALANCE				
Opening cash balance	22,36,923.80	79,45,71,046.76	1,66,68,04,055.29	3,00,06,84,270.77
Surplus/ deficit (A-B)	79,23,34,122.96	87,22,33,008.53	1,33,38,80,215.48	1,54,10,28,541.51
Closing balance	79,45,71,046.76	1,66,68,04,055.29	3,00,06,84,270.77	4,54,17,12,812.28

Interpretation: Table 4.2 shows the total amount of receipts & payments increases as we approaches towards every end of

the financial year. The amount especially payments rises constantly from 2015 to 2016 and from 2016 to 2017 and

finally 2018 shows the highest payment amount. From the above table we can calculate how total cash was required by the company for its disbursements. In order to know the exact amount of minimum cash balance the company can apply the Baumols Model and get accurate amount.

Application of Baumol's Model

William J. Baumol developed a model which is usually used in inventory management but has its application in determining the optimum cash balance also. As per this model the optimum cash balance is the trade off between opportunity cost and the transaction cost (i.e. cost of converting marketable securities into cash etc). The optimum cash balance is reached at a point where the total cost is minimum. It means the point of intersection between Transaction cost and holding cost. This model is based on the following formula:

$$C^* = \sqrt{\frac{2cT}{k}}$$

where C=minimum Cash balance, T= total cash requirement, c = transaction cost per unit and k= opportunity

cost. On the basis of the data mentioned earlier in this paper, we can have T=30000000 which is the total cash requirement. As per data given by the company the c i.e. transaction cost is which is Rs4.24/-per transaction and k, opportunity cost is 8%.by fitting these data into this formula, we can get the optimum cash balance.

$$\text{Therefore, } C^* = \frac{\sqrt{2 * 4.2449 * 30000000}}{8\%} = \text{Rs.56424.06}$$

Therefore on the basis of the above calculation we can say that the optimum cash balance for all the times is Rs.56,424.06 for all times. It means the company requires constantly the amount of Rs.56,424.06/- to maintain its optimum cash balance. The optimum cash balance with the help of Baumol's Model is arrived at Rs 56,424.06/-

From trial and error method also we can calculate optimum cash balance by assuming cash balance and considering same opportunity cost and the below represent as follows-

Table 4.3: Trial & Error Method

Particulars						
Cash balance [C]	50,000	60,000	70,000	80,000	90,000	1,00,000
Holding cost						
Avg cash balance (c/2)	25,000.	30,000	35,000	40,000	45,000	50,000
opportunity cost (k)	0.08	0.08	0.08	0.08	0.08	0.08
total holding cost (A)	2,000.00	2,400.00	2,800.00	3,200.00	3,600.00	4,000.00
Transaction cost -						
No of deposits (T/C)	600.00	500.00	428.57	375.00	333.33	300.00
Per transaction [c]	4.24	4.24	4.24	4.24	4.24	4.24
Total transaction (B)	2,546.94	2,122.45	1,819.24	1,591.84	1,414.97	1,273.47
Total cost (A+B)	4,546.94	4,522.45	4,619.24	4,791.84	5,014.97	5,273.47

Interpretation: Table 4.3 represent assumed cash balance on the basis of Baumol's Model and select the minimum total cost is Rs.4,522.45/- and the optimum cash balance i.e.60,000/- which is approximately near to Rs.56,424.07 both trial and error method and Baumol's model optimum cash balance is almost same.

V. CONCLUSIONS AND SUGGESTIONS

This shows that the company needs to further streamlined its cash management system and also needs to frame better cash management policies. If the firm wants to know minimum cash balance they can apply Baumols Model and trial error method. The company has to improve collections so as to utilize the sources at an optimum level, where the cash with the company will raise which can be invested for short-term.

The company is not having any cash policy. This indicates that the cash balance with the company is not utilized properly. So the company should have proper cash holding policy for optimal cash Balance.

The Company has to maintain a proper synchronization between cash inflows & cash outflows in order to avoid shortage or excess of cash. Therefore the financial arrangement of the company was not so acceptable for the current fiscal year due to weak market conditions and serious competition. The money is held for the long period, so the policies have to be framed as to utilize at an optimum level. The credit policy of the company is very liberal. The payments made by the company are much before the due date; here the company can make use of the funds for other reason till the due date.

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