Article - Working Capital Management
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Professional 1 Managerial Finance & Professional 2 Financial Management

Working Capital

An organisation's working capital refers to its current assets less its current liabilities. Typical assets and liabilities included in these categories are:

Current Assets
Cash
Inventories of raw materials, work in progress, finished goods
Accounts Receivable

Current Liabilities
Accounts payable
Taxation payable
Short term loans
Long terms loans maturing within one year
Lease rentals due within one year

Working capital is often referred to as the fluctuating capital of an organisation, as it will typically change on a day to day basis (as distinct from non-current assets and liabilities).

Objectives of Working Capital Management

The two main objectives of working capital management are:

- to ensure the organisation has sufficient working capital resources to function and grow
- to improve profitability by keeping the investment in working capital to the minimum required

These two objectives may conflict. For example, whilst an excessively conservative approach to working capital management may provide ample liquidity it may also reduce profits because excessive funds tied up in working capital will not be available to invest in profitable opportunities.

The effectiveness of working capital management can be measured as follows:

Objective 1 - To ensure the organisation has sufficient working capital resources to function and grow

Liquidity
Liquidity refers to whether or not an organisation is in a position to meet its short term obligations as they fall due. The ultimate risk associated with being illiquid that creditors may be granted a High Court order to liquidate the organisation. The following ratios help assess an organisation's liquidity:

1) Current Ratio = Current Assets: Current Liabilities

This is the standard test of liquidity. A current ratio in excess of 1 would be required to indicate an ability to meet short term obligations as they fall due.

2) Quick Ratio = Current Assets less Inventories: Current Liabilities

This is a more stringent test of liquidity often referred to as the 'acid test'. It excludes inventories when assessing the availability of cash to meet short-term obligations. A quick ratio of no less than 1 would be required to indicate an ability to meet short term obligations as they fall due.

Forecasting Funding Requirements
Cash flow forecasting/budgeting enables an organisation to project both the:

- funds required for the recurrent investment in working capital
- extent of short term fluctuations in working capital requirements

This exercise will be of particular importance in an expanding business in order to avoid overtrading whereby an organisation attempts to support an increasing recurrent investment in working capital without having sufficient long term funding in place. Overtrading may lead to liquidity problems. Symptoms of overtrading include:

- rapid increase in turnover
- rapid increase in inventory holding and trade receivables
- deteriorating cash holdings
- deteriorating current and quick ratios
- inability to meet obligations as they fall due

To avoid overtrading, the financial manager will be responsible for projecting the cash-flow (including working capital) requirements of their organisation over the medium term (1-5 years) and for putting in place funding to meet these requirements. It is essential to ensure that long term sources of funds are used to fund the recurrent investment in working capital. Thereafter, short term funds such as bank overdrafts, term loans may be used to fund the fluctuating working capital requirement.

Objective 2 - To improve profitability by keeping the investment in working capital to the minimum required

The Working Capital/Cash Operating Cycle
The working capital/cash operating cycle measures the time in days that cash is tied up in working capital. Ideally, the shorter the cycle the better. The working capital cycle is normally measured as follows:

The Inventory Turnover Period
Plus: The Accounts Receivable Period
Less: The Accounts Payable Period

These individual ratios are determined as follows:

Inventory Turnover Period
This represents the average time in days for which inventories are held. It is calculated as follows:

Inventory Purchases * 365

Average Inventory

Note: If inventory purchases is not available use cost of sales as a proxy measure.
Note: If average inventories cannot be discerned use closing inventories as a proxy measure.

Ideally, the shorter the inventory period the better. However, management must guard against the adverse effects of stock outs which may occur if too aggressive an inventory policy is adopted. It should be noted that many organisations hold no/little inventories by operating successful Just-In Time (JIT) procurement and production systems.

Accounts Receivable Period
This represents the average time in days it takes for trade debtors to pay. It is calculated as follows:

Trade Receivables * 365

Credit Sales Turnover

Note: Assume all turnover represents credit sales unless indicated otherwise.
The accounts receivable period should match the standard credit settlement terms offered by the organisation. An increasing accounts receivable period may indicate ineffective credit control.
It should be noted that many organisations may offer more generous credit settlement terms as a strategic tactic to attract increasing business.

Accounts Payable Period
This represents the average time in days it takes to pay trade creditors. It is calculated as follows:

$$\frac{\text{Trade Payables}}{\text{Purchases}} * 365$$

Note: If purchases is not available use cost of sales as a proxy measure.

Ideally, the accounts payable period should equal the standard credit settlement terms offered to the organisation. This would ensure that an organisation avails of the maximum credit available without damaging its credit rating/supplier relationships.

Example

The following example assesses the working capital of a company Jamie Limited for the year ended 31st December 2007.

Jamie Limited
Jamie Limited is a rapidly expanding company Irish company headquartered in Kilkenny. Jamie Limited distributes children's furniture to an increasing customer base spread throughout Europe. In the last year the company opened two new distribution centres in Brussels and Budapest. It plans to open two further centres in Berlin and Belfast in the coming year.

Extracts from Jamie Limited's most recent audited accounts are as follows:

Jamie Limited Income Statement - Year Ended 31st December 2007		
	2006	2007
	€000s	€000s
Revenue	4,700	9,400
Cost Of Sales	3,400	6,600
Gross Profit	1,300	2,800
Less: Expenses	800	1,470
Net Profit	500	1,330

Jamie Limited **Balance Sheet as at 31st December 2007**		
	2006	2007
	€000s	€000s
Non Current Assets at NBV		
Property and Plant	400	1,600
Other Assets	160	380
Total Non-Current Assets	560	1,980
Current Assets		
Inventories	80	330
Trade Receivables	100	520
Cash & Cash Equivalents	400	0
Total Current Assets	580	850
Total Assets	1,140	2,830
Equity & Liabilities		
Equity Attributable to Equity Holders		
Share Capital	50	50
Other Reserves	450	1780
	500	1830
Non Current Liabilities		
Long term borrowings	300	100
Current Liabilities		
Trade payables	140	340
Dividend payable	20	50
Short Term Borrowings	0	350
Current portion of long term borrowings	180	160
Total Current Liabilities	340	900
Total Liabilities	1,140	2,830

Jamie has negotiated an average settlement period of 30 days from its creditors.

Required:
Prepare a report for the management of Jamie Limited that assesses the company's working capital management for the year ended 31st December 2007.

Report

To: Management, Jamie Limited

From: A. N Other, Accountant

Date: 10th January 2008

Subject: Working Capital Management

Introduction

This report assesses your company's working capital management for the year ended 31st December 2007.

Liquidity

Liquidity refers Jamie Limited's ability to meet its short term obligations e.g. payments to creditors and loan repayments as they fall due. If your company is unable to meet such payments as they fall due the ultimate sanction would be for creditors to obtain a High Court order to liquidate your company

Current Ratio

The current ratio of current assets: current liabilities is a standard test of liquidity. Jamie Limited's current ratio has deteriorated from 1.71:1 [580:340] in year ended 31st December 2006 to .94:1 [850:900] in year ended 31st December 2007. This represents a significant deterioration in liquidity and falls below the generally accepted principle that the current ratio should be in excess of 1.

Quick Ratio

This is a more testing measure liquidity as it excludes inventories in assessing your ability to meet short-term obligations. Jamie Limited's quick ratio has fallen from 1.47:1 [500:340] in year ended 31st December 2006 to .58:1 [520:900] in year ended 31st December 2007, representing deterioration in liquidity. The quick ratio now falls below the recommended 1:1 ratio.

Working Capital Cycle

A company's working capital cycle measures in days the average time cash is tied up in working capital. Jamie Limited's working capital cycle has increased by 18.3 days to 19.7 days during the year ended 31st December 2007. Details are as follows:

Jamie Limited Operating Cycle Calculation (Days)		
	2006	**2007**
	Days	**Days**
Inventory Days	8.6	18.3
Trade Receivable Days	7.8	20.2
Trade Payable Days	-15.0	-18.8
Operating Cycle	**1.4**	**19.7**

This represents an increased investment in working capital.

Working Capital Investment

The expansion of your company involving the opening of two new distribution centres has necessitated an increased working capital investment of €70,000 {€440k (580-140) in y/e 31/12/2006 to €510k (850-340) in y/e 31/12/2007} during the year ended 31st December 2007. This investment has effectively been funded from cash reserves and from short term loans.

Non-Current Asset Investment

Your company has invested €1,420,000 in non current assets during the year ended 31st December 2007. This has primarily been funded from retained earnings of €1,330,000 for the year. The remaining €90,000 has been effectively been funded from cash reserves and by raising short term loans.

Long Term and Short Term Borrowings

During the year ended 31st December 2007 your company paid off €200,000 of long term borrowings, has taken out short term loans of €350,000 and cash reserves have been reduced from €400,000 to €nil. This would indicate that the company's liquidity is being placed under strain, as short term borrowings are being used to repay long term debt and to fund the recurrent investment in non-current assets and working capital.

Overview

Whilst, it has been a successful year in terms of increased turnover and profits Jamie Limited is overtrading i.e. using cash reserves to fund the increasing recurrent investment in non-current assets and working capital. As a result Jamie Limited's liquidity is threatened as evidenced by the deterioration in both the current and quick ratios.

Recommendations to Improve Liquidity and Working Capital Management

- improve stock management in order to tie-up less cash in inventories
- source long term finance to replace short term borrowings and to build up cash reserves
- continue with a dividend policy that retains profits within the company
- source long term finance to provide funds for both future capital asset investment and the increased recurrent working capital investment
- avail of the full 30 days settlement terms on offer from creditors

Conclusion

The dramatic deterioration in Jamie Limited's liquidity during 2007 is as a result of overtrading. This can be resolved by obtaining long term finance to fund the company's expansion.