

M.Com. (Applied Economics)
Semester II
Accounting for financial decision II

Broad Topic

Working Capital Management

Sub-topic

Estimation of Working capital finance

Teacher

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Estimation of working capital finance

The ultimate objective of planning of working capital management is to know the need of working capital to finance net current assets in advance. The needed amount is to be known in advance so as to make necessary steps to arrange working capital means funds in advance as well to avoid any inconvenience when need arise.

There are many methods of estimating requirement of working capital, for example:

1. Cash forecasting method
2. Balance sheet method
3. Percentage sales method
4. Operating cycle method
5. Regression method
6. Adjusted profit and loss method

But the following three are most widely used methods:

1. Percentage sales method
2. Operating cycle method
3. Regression method

We will only talk about first two methods in this discussion note.

Percentage Sales Method

Under this method, the working capital needs are ascertained on the basis of relationship between working capital and sales. The relationship between sales and various components of current assets and current liabilities is ascertained for previous one to two years. And on the basis of average relationship, the requirement of working capital is calculated. The following example will make it clear.

Example 1.

The Anand industries have a sales level of Rs. 90 crores in for the year 2017-18. The expected sales turnover for the year 2018-19 is Rs. 135 crores.

Liabilities	Amount
Equity share capital	110
Reserves and surplus	40
Secured loans	45
Unsecured loans	55
Current Liabilities	
Sundry Creditors	65
Provision for taxation	35
	350
Assets	
Land and Buildings	40
Plant and Machinery	60
Long term investments	50
Current Assets:	
Inventories	75
Receivables	65
Cash and cash equivalents	20
Short-term investments	40
	350

Solution:

Estimation of working capital requirement

	Actual (2017-18) (Rs. Crore)	% to sales 2018-19	Estimate 2018- 19 (Rs. Crore)
Sales	90	100	135
Current Assets:			
Inventories	75	83.33	112.5

Receivables	65	72.22	97.5
Cash and cash equivalents	20	22.22	30
Short-term investments	40	44.44	60
(a)	200	222.22	300
Current Liabilities			
Sundry Creditors	65	72.22	97.5
Provision for taxation	35	38.89	52.5
(b)	100	111.11	150
Working capital (a-b)	100	111.11	150

Operating Cycle Method

We already had a detailed discussion about the concept of operating cycle and its estimation. The longer the length of the cycle higher will be the requirement of working capital. Let us take an example of it.

For the estimation of working capital, the following formula can be used, if you have total length of operating cycle:

Working capital = [Cost of goods sold * (operating cycle/365)] + Cash balance margin

The following example has been taken from the book of S N Maheshwari (2006) Financial Management:

XYZ Ltd. Sells its products on a gross profit of 20% on sales. The following information is extracted from its annual accounts for the year 2019:

Sales at 3 months' credit	4000000
Raw Material	12000000
Wages paid – 15 days in arrears	960000
Manufacturing expenses paid – one month in arrears	1200000
Administrative expenses paid – one month in areas	480000
Sales promotion expenses – payable half yearly in advance	200000

The company enjoys one month credit from the suppliers of raw material and maintains 2 months stock of raw materials and one and half months finished goods. Cash balance is maintained at Rs. 100000 as a precautionary balance. Assuming a 10% percent margin, find out the working capital requirements.

Solution:

Working notes:

a. Sales	4000000
b. Gross profit @20% on sales	800000
c. Cost of production (a-b)	3200000

Statements showing working capital requirements

1. Current Assets	Amount
Stock of raw materials (1200000*2/12)	200000
Stock of finished goods (3200000*1.5/12)	400000
Debtors (3200000*3/12) ^{\$}	800000
Prepaid sales promotion expenses (200000*1/2)	100000
Cash balance maintained	100000
Total current assets	1600000
2. Current Liabilities	
Creditors for goods (1200000*1/12)	100000
Outstanding manufacturing expenses (1200000*1/12)	100000
Outstanding wages (960000*1/12*1/2)	40000
Outstanding Admn. Expenses (480000*1/12)	40000
Total current liabilities	280000
Working capital (1-2)	1320000
Add: Margin (10%)	132000
Total working capital requirements	1452000

\$Debtors have been taken at cash cost to the business. Alternatively, they could have been taken at their total value Rs. 1000000 i.e. (Rs. 4000000*3/12).