METHODS OF ESTIMATING WORKING CAPITAL REQUIREMENT

The following methods are used to calculate the amount of working capital requirement in a business

1. **Operating cycle concept**: In this method, the estimates of working capital requirements on the basis of average holding period of current assets and relating them to costs based on company's expectations and experiences. This value of total current assets is known as gross working capital. From gross working capital, the expected current liabilities like sundry creditors for raw materials, expenses, etc are deducted to find net working capital. This is the most appropriate method of calculating working capital

2. **Current assets holding period Method**: This method is based on operating cycle period. Here, the working capital requirement equals to gross working capital requirement.

3. **Ratio to sales method**: The working capital requirements are estimated as a ratio of sales for each component of working capital.

4. **Ratio of fixed investment method:** The working capital is estimated as a percentage of fixed investment.

The above methods of estimating working capital requirements are illustrated as under:

	Rs.
Net material costs	179,200
Manufacturing overhead (other than depreciation)	628,800
Depreciation	160,000
Total Product Costs	968,000
Annual Sales	1,448,000
PBIT	480,000
Investment	1,600,000
PBDIT (PBIT + Depreciation)	640,000

Assume that raw material stock for one month; semi-finished material for one month (based on raw material plus one half of normal conversion cost); finished material in one month's supply; debtors-one month sales; operating cost-one month's total costs; suppliers for raw material provides two months' credit.

Estimation of Working Capital Requirements:

Method I: (Operating cycle approach)(Refer to calculation of operating cycle given in the previous content)

Particulars	Rs.
Raw material stock (179,200 ÷ 12)	14,933
Semi-finished stock:	
[14,933 + (628,800 ÷ 2 ÷ 12)	] 41,133
Finished goods stock (968,000 ÷ 12)	80,667
Debtors (1,448,000 ÷ 12)	120,667
Operating cash (968,000 ÷ 12)	80,667

Total current assets	338,067*
Less: Current liabilities	
(179,200 ÷ 12 × 2)	29,867

Net working capital requirement	308,200

Method II (Current assets holding period approach)*

Working capital requirement
= Total current assets 338,067

Method III (Ratio to Sales Method)

Assume that industry's average ratio is 30%. Therefore, working capital is 30% of Annual sales, i.e., Rs. 434,400 (30% ×1,448,000)

Method IV : Ratio of fixed investment method:

Assume 15% the average rate of fixed investment. Hence, the working capital requirement Rs. 240,000 (i.e., 15% ×1,600,000).

All above methods are subject to error if markets are seasonal, and/or estimate is inaccurate.

A number of factors govern the choice of methods of estimating working capital. Therefore, each factor, for example, seasonal variations, variability in input factors' prices, production cycle, etc., should be given due weightage in Projecting working capital requirements