

## 1. Annual Compounding:

$$FV = PV(1+r)^n$$

$$16000 = 10000(1+r)^3$$

$$(1+r)^3 = 1.6$$

$$1+r = (1.6)^{\frac{1}{3}}$$

$$1+r = 1.17$$

$$r = 1.17 - 1 = 0.17$$

$$0.17 \times 100 = 17\% \text{ Ans}$$

## 2. Semiannual Compounding:

$$3 \times \text{A} = 3 \times 2 = 6$$

Formula  $FV = PV \left(1 + \frac{r}{SC}\right)^n$

$$16000 = 10000 \left(1 + \frac{r}{2}\right)^6$$

$$1 + \frac{r}{2} = (1.6)^{\frac{1}{6}}$$

$$1 + \frac{r}{2} = 1.081$$

$$\frac{r}{2} = 1.081 - 1 = 0.081$$

$$\frac{r}{2} = 0.081 \Rightarrow$$

Contribution Margin

$$0.081 \times 2 = 0.162 \times 100 = 16.2\% \text{ Ans.}$$

## (PART B)

According to the Pecking order theory, firms prefer to finance their operations by following a specific order based on cost and risk. This theory explains that companies do not choose their ~~for~~ financing sources randomly; instead, they prefer those options that involve less risk, lower cost, and minimal information disclosure.

First of all, firms prefer internal financing, such as retained earnings, because it does not involve any issuance cost or interest payment. Internal funds are readily available and allow firms to invest without depending on outsiders.

Moreover, using retained earnings helps management avoid the problem of information asymmetry, as managers usually possess better information about the firm's true financial position than external investors.

Second, internal financial helps <sup>firm</sup> maintain control. When firms take money from outside sources, lenders and investors may interfere in business decision. By using their own funds, firms can make decisions freely and follow their long-term plans without pressure.

If internal funds are not enough, firms then move towards debt financing. Debt is preferred over equity because it ~~do~~ does not reduce ownership and is usually cheaper. Equity financial is the last option because it is costly, reduces control, and may give a negative signal to the market.

In conclusion, the pecking order theory explains that firms prefer internal financial first, then debt, and equity as a last option mainly to reduce cost risk, and loss of control.

## Given information (Rahus)

### 1 Shareholders' Equity

$$\text{Equity} = \text{Common stock} + \text{Retained Earnings}$$

$$100000 + 100000 = \boxed{200000}$$

### 2 Long-term Debt

$$\text{Long-term Debt} : \text{Equity} = 0.5 : 1$$

$$\text{Long-term Debt} = 0.5 \times 200000 = 100000$$

### 3 Total Liabilities and Total Assets

#### Total Liabilities

$$\text{Notes Payable} = 100000$$

$$\text{Long-term Debt} = 100000$$

$$\text{Total Liabilities} = 200000$$

#### Total Assets:

$$\text{Assets} = \text{Liabilities} + \text{Equity}$$

$$200000 + 200000 = 400000$$

## Step 4: Sales (Using Total Assets Turnover

$$\text{Total Asset Turnover} = \frac{\text{Sales}}{\text{T.A}}$$

$$2.5 = \frac{\text{Sales}}{400,000}$$

$$2.5 \times 400,000 = 1,000,000$$

## Step 5: Gross Profit and Cost of Goods Sold.

Gross Profit:

$$\text{Gross Profit} = 10\% \times 1,000,000 = 100,000$$

Cost of Good Sold:

$$\text{COGS} = 1,000,000 - 100,000 = 900,000$$

## Step 6: Inventory (Using Inventory Turnover)

$$\text{Inventory Turnover} = \frac{\text{COGS}}{\text{Inventory}}$$

$$9 = \frac{900000}{\text{Inventory}}$$

$$\text{Inventory} = 100000 \text{ Ans.}$$

## Step 7: Accounts Receivable (Using Collection Periods)

$$\text{Collection Period} = \frac{\text{Accounts Receivable} \times 360}{\text{Sales}}$$

$$18 = \frac{\text{A/R} \times 360}{1000000}$$

$$\text{A/R} = 50000$$

Date \_\_\_\_\_  
Step 8: Cash (Using Acid Test Ratio)

$$\text{Acid Test Ratio} = \frac{\text{Cash} + \text{A/R}}{\text{Current Liabilities}}$$

Current Liabilities

$$\text{Current Liabilities} = \text{P Notes Payable} = 100000$$

$$1 = \frac{\text{Cash} + 50000}{100000}$$

$$\text{Cash} = 50000 \text{ Ans.}$$

Step 9 Plant and Equipment:

$$\text{Equipment} = (\text{Total Assets}) - (\text{Cash} + \text{A/R} + \text{Inventory})$$

$$400000 - (50000 + 50000 + 100000)$$

$$\boxed{200000 \text{ Ans.}}$$

# (Completed Balance)

## Balance Sheet

| Assets              | Amount  |
|---------------------|---------|
| Cash                | 50000   |
| Accounts Receivable | 50000   |
| Inventory           | 100,000 |
| Plant and Equipment | 200,000 |
| Total Assets        | 400000  |

## Liabilities and Equity:

|                              |        |
|------------------------------|--------|
| Notes and Notes payable      | 100000 |
| Long-term Debt               | 100000 |
| Common Stock                 | 100000 |
| Retained Earnings            | 100000 |
| Total Liabilities and Equity | 400000 |

# Use of Ratio Analysis for ~~St~~ Stakeholders

1. Management: Checks efficiency, control costs, improves profits.
2. Investors / Shareholders: Judges profitability, growth, and dividend potential.
3. Creditors and lenders: Assesses ability to repay debts and financial risk.
4. Employees: Ensures job security and timely salaries.
5. Government / Regulators: Monitors compliance, taxes, and financial stability.

## Introduction:

Strategic fit refers to the proper alignment between firm's Competitive Strategy and its Supply Chain Strategy.

A company's competitive strategy defines how it plans to compete in the market - whether through cost leadership or differentiation, or responsiveness - while the supply chain strategy determines how materials, information, and funds flow to support this goal. To gain sustainable competitive advantage, a firm must ensure that its supply chain capabilities are consistent with its competitive objectives.

## Understanding the Competitive Strategy.

The first step toward achieving strategic fit is a clear understanding of the company's competitive strategy. If a firm competes on low cost, its supply chain should focus on efficiency, cost control, and economies of scale. On the other hand, if the firm competes on product differentiation, quality, or quick response, the supply chain must be flexible and responsive. Without clarity about competitive priorities, the supply chain may work in a direction that weakens overall performance.

## 2. Understanding Customer Needs and Demand Characteristic.

A company must carefully analyze Customer demand patterns such as:

- Level of demand uncertainty.
- Desired service level.
- Product variety.
- Lead time expectations.

For example; customers who have low price and stable products require an efficient supply chain. Whereas customers who demand innovation and fast delivery require a responsive supply chain. Matching supply chain design with customer expectations is essential for strategic fit.

### 3. Designing the Right Supply Chain Strategy.

Once Customer needs and Competitives Priorities are identified, the firm must design a supply chain that supports them. This involves choosing between.

- Efficient Supply Chains (cost minimization, high Capacity Utilization)
- Responsive Supply Chains (flexibility, speed, adaptability)

Some companies adopt a hybrid approach, where efficiency is maintained for stable products and responsiveness is ensured for innovation or uncertain products.

#### 4. Alignment of Supply Chains Drivers

Strategic fit requires proper alignment to key supply chain drivers, including:

1. Facilities (location, capacity, specialization)
2. Inventory (levels, safety stock, turnover)
3. Transportation (cost vs speed)
4. Information (accuracy, real-time sharing)
5. Sourcing (cost efficiency vs reliability)
6. Pricing (consistent with demand and cost structure)

All these drivers must support the same strategic goal. Misalignment among them leads to inefficiencies and poor performance.

# Coordination across the Supply Chain.

Achieving Strategic fit also requires Strong Coordination among Supply Chain Partners such as Suppliers, manufacturers, distributors, and retailers. Information Sharing, Collaborative planning, and long-term relationships help ~~not~~ reduce uncertainty and improve responsiveness. A lack of coordination often results in higher costs, delays, and service failures.

## Continuous Monitoring and Adaptation:

Markets, technologies, and customer preferences change over time. Therefore, strategic fit is not a one-time achievement. Companies must continuously monitor performance and adapt their supply chain strategies to remain aligned with evolving competitive conditions. Regular review of demand trends, cost structures, and service levels is essential.

## 7. Role of Technology and Information Systems:

Modern information system plays a vital role in achieving strategic fit. Technologies such as ERP systems, data analytics, and real-time tracking improve visibility and decision-making across the supply chain. Better information flow helps firms balance efficiency and responsiveness more efficiently.

## Conclusion:

In conclusion, a company can achieve strategic fit by clearly defining its competitive strategy, understanding customer demand, designing an appropriate supply chain, alignment aligning key drivers, ensuring coordination among partners, and continuously adapting to change. Strategic fit enables firms to use their supply chains as a source of competitive advantage rather than a cost burden. A well-aligned supply chain not only improves efficiency but also enhances customer satisfaction and long-term profitability.