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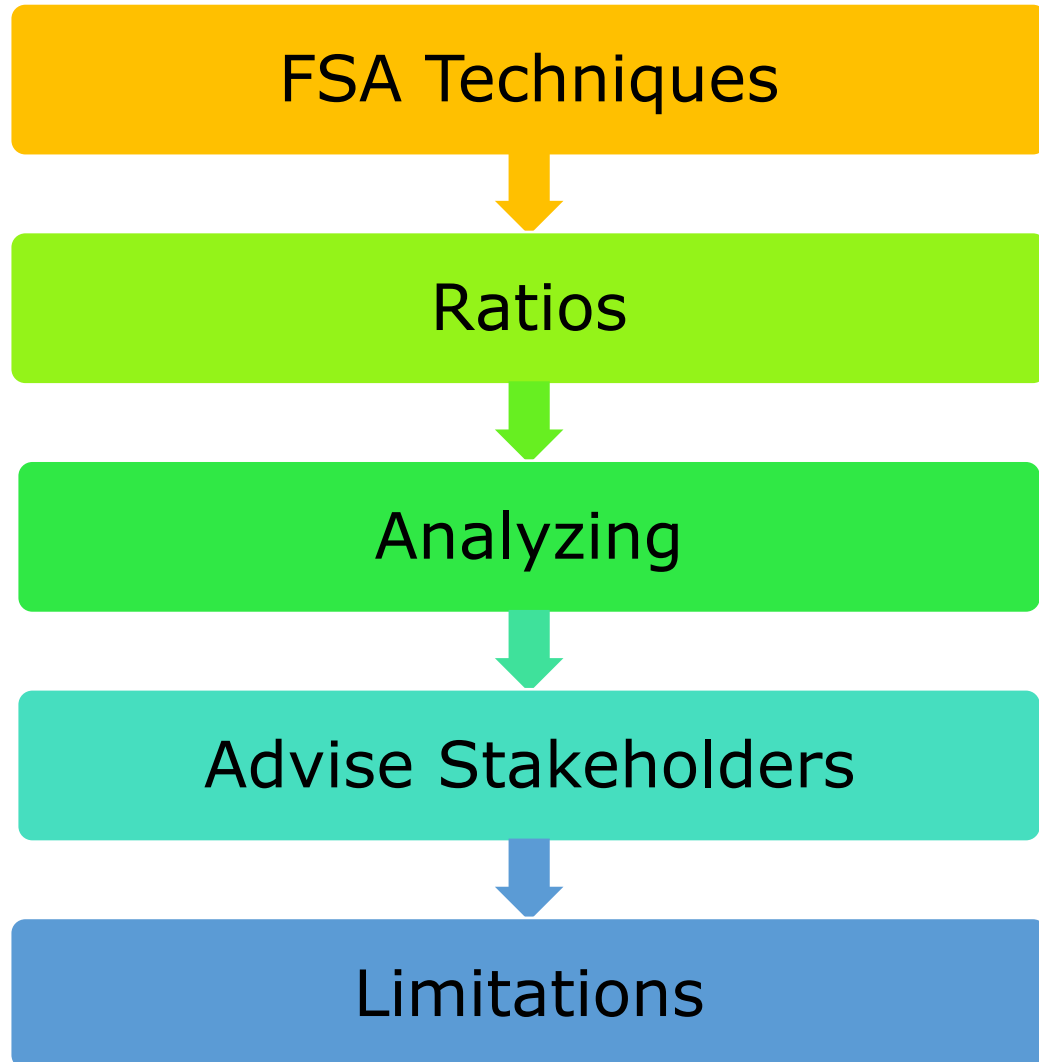
SL/CL 25-1 – Advanced Corporate Reporting and Corporate Financial Reporting

Analyzing and Interpreting Financial Statements

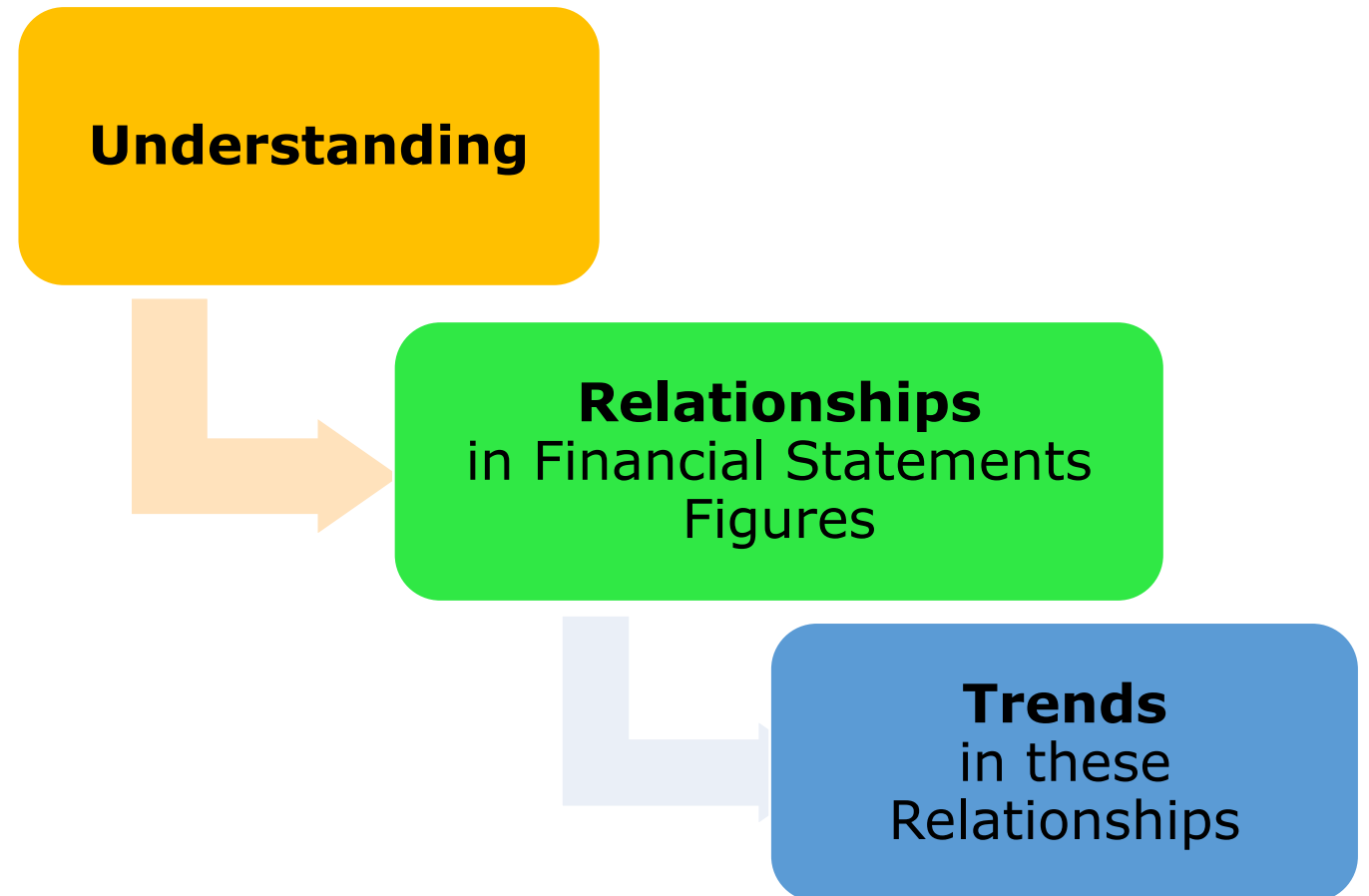
Chandima Prabhath

B.Sc. Accounting (special) First Class (USJ) | ACA | CMA Passed Finalist | MAAT | ICAEW Finalist | CA,CMA and AAT Merit and Subject Prize winner | Certification in Forensic Accounting (CASL) | ABR Prize winner CA Strategic Level

Syllabus Overview



What is Financial Statements Analysis (FSA)?



Evaluating Financial & Non-Financial Performance



Multi-Capital Framework | ESG Integration | Cross-Border Reconciliation

THE SIX CAPITALS MODEL | IIRC's <IR> Framework

Financial Capital



Funds for operations & growth
(Equity, Debt)

Manufactured Capital



Physical infrastructure
(Buildings, Equipment)

Intellectual Capital



Knowledge & innovation
(IP, Systems, Data)

Human Capital



Skills, motivation
& wellbeing of people

Social & Relationship Capital



Community & stakeholder
relationships, brand trust

Natural Capital



Environmental resources
(Water, Air, Biodiversity)

 **KEY INSIGHT:** Capitals are interconnected — investing in Human Capital builds Intellectual Capital, which improves Financial returns.

PERFORMANCE MEASUREMENT — KEY DIMENSIONS



Strategic Alignment

- Link subsidiary KPIs to group strategy
- Avoid divisional silos
- Align exec remuneration to shared targets
- Leading indicators > lagging metrics



Cross-Border Normalisation

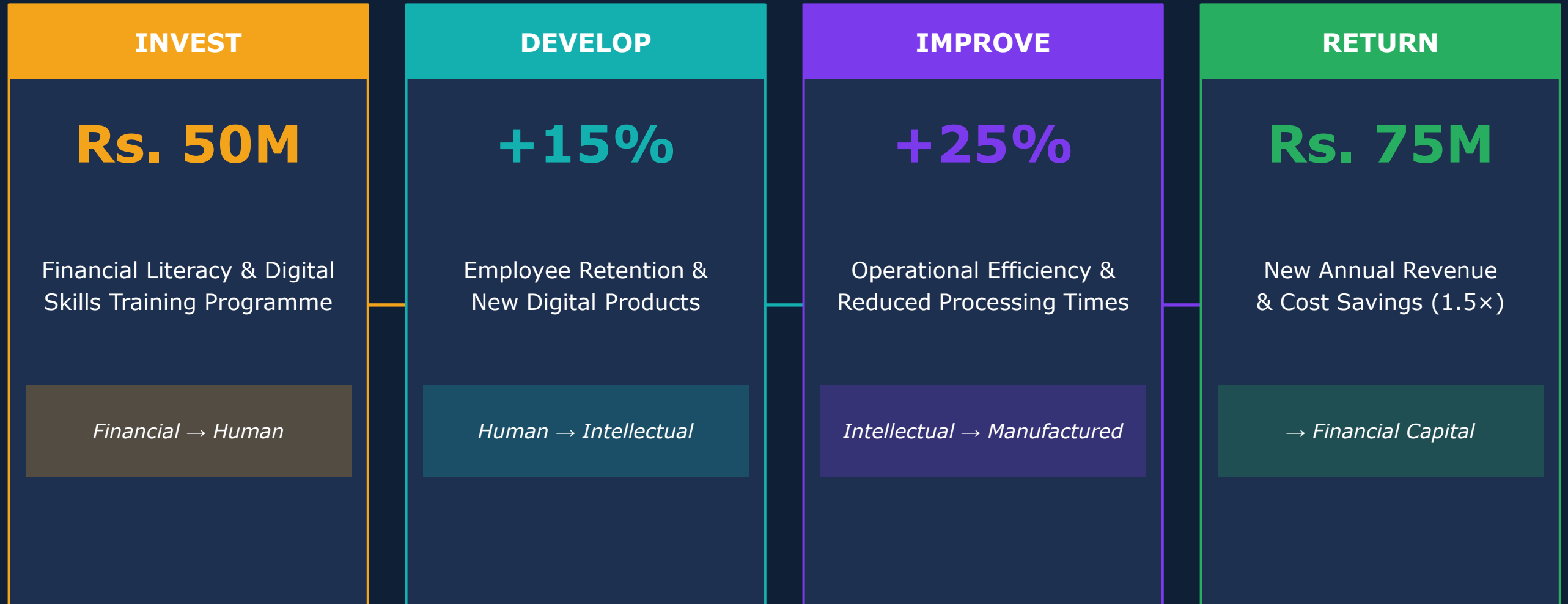
- Currency translation impact (LKAS 21)
- Transfer pricing at arm's length (OECD)
- Constant currency analysis
- Isolate non-operational distortions



ESG Integration

- SLFRS S1 & S2 compliance
- Climate risk quantification
- Board-level accountability
- Link ESG to executive pay

ILLUSTRATIVE EXAMPLE — SIX CAPITALS CONVERSION CHAIN



Source: Taprobane Finance Ltd — Rs. 50M Human Capital Investment → Rs. 75M Financial Return (1.5x multiplier)

FSA Techniques

Vertical Trend Analysis

- **Analyze SAME YEAR** financials
- with an **EQUIVALENT COMPETITOR**

Horizontal Trend Analysis

- **YEAR on YEAR** variance analysis
- To identify **TRENDS**

Common Size Financial Statements

- A **common base figure** and amounts as % to compare

Ratio Analysis

- Compute **various ratios** and do analysis

Factors that Affect Horizontal Trends

Major Transactions

- Mergers – Glaxco merging with Smith Kline
- Acquisitions – Browns (LOLC) acquired Serendib Hotels PLC (Hemas)

An Incident

- Natural Disasters – Floods Affecting Farming
- Easter Sunday attack impacts Tourism Sector
- Corona impact on all the business

Macro Economic Changes

- Changes in Sri Lankan Political Power
- Changes in Tax Law (VAT reduction, NBT Waiving)

Changes in Accounting Estimates

- Changing depreciation method
- Changing warranty provisions

Factors that affect Vertical Trend Analysis

Difficulties in finding an equivalent competitor in terms of

Business Strategy

Business Scope

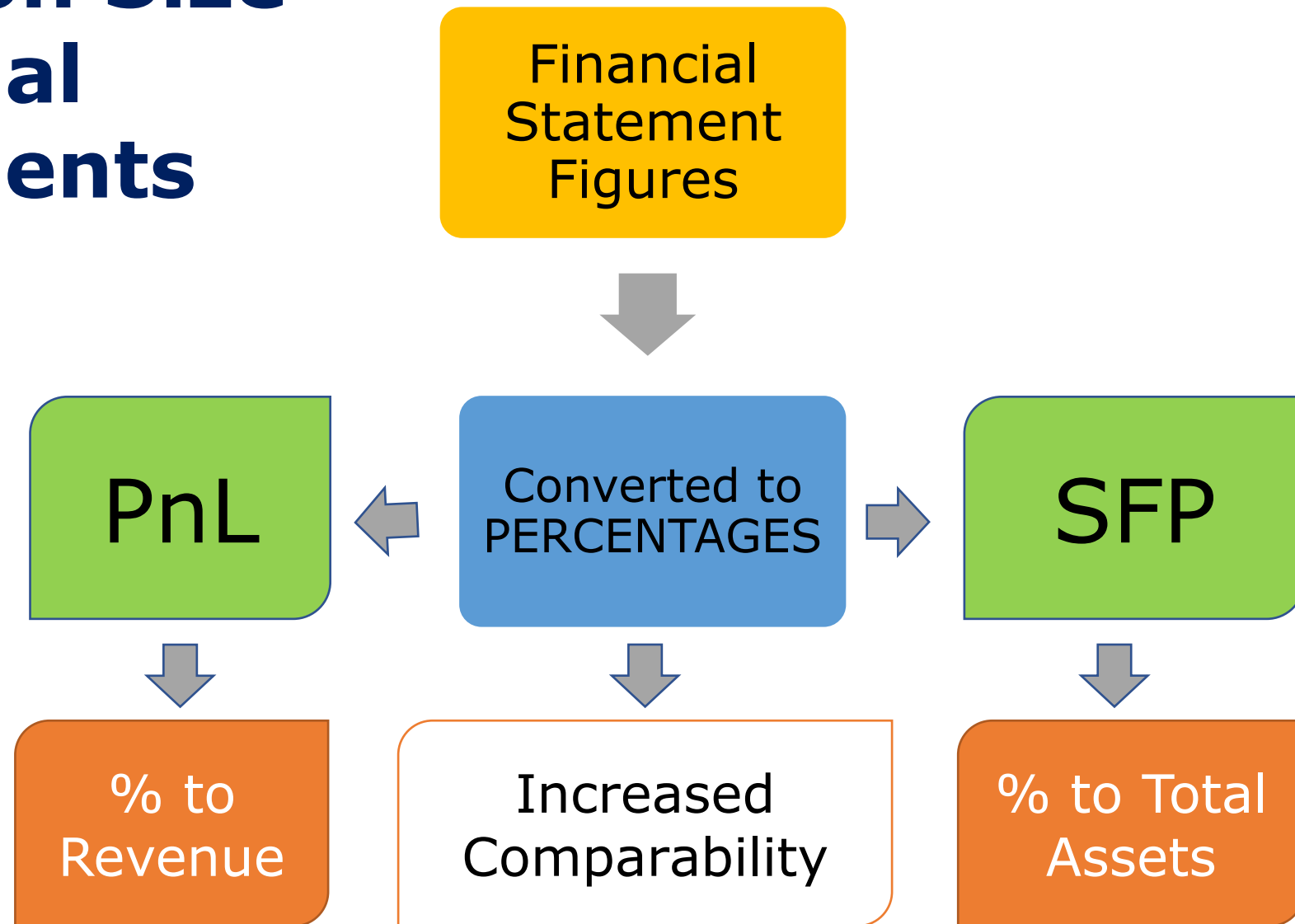
Life Cycle Stage

Geographic coverage

Financial Year End

Accounting Policies and Estimates

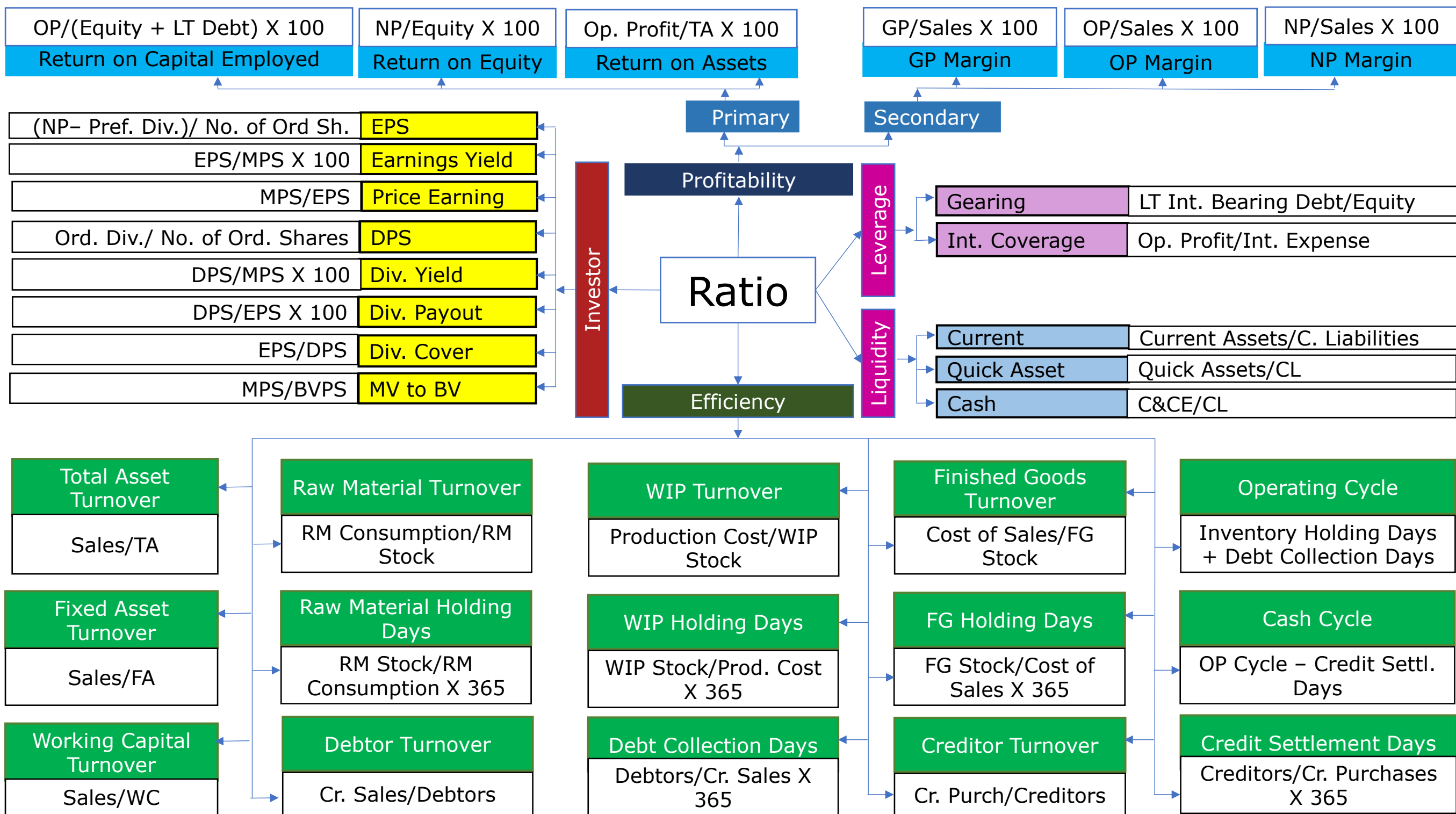
Common Size Financial Statements





Comprehensive Ratio Analysis Framework

Profitability | Efficiency | Liquidity | Leverage | Investor | Non-Financial



NON-FINANCIAL RATIO FRAMEWORK

OPERATIONAL RATIOS

- Capacity Utilisation
- Defect Rate & Quality
- On-Time Delivery Rate
- Employee Productivity

CUSTOMER RATIOS

- Customer Acquisition Cost (CAC)
- Customer Lifetime Value (CLV)
- Net Promoter Score (NPS)
- Customer Retention Rate

HUMAN CAPITAL RATIOS

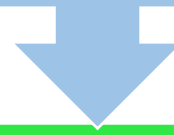
- Employee Turnover Rate
- Revenue per Employee
- Training Investment Ratio
- Employee Engagement Score

ESG PERFORMANCE RATIOS

- Carbon Intensity (per unit output)
- Water Usage Efficiency
- Safety Incident Rate
- Board Diversity Metrics

Ratio Analysis Steps to Follow

01. Calculate Ratios



02. Calculate Variance

Calculate % Difference between Prime
& Base figure

Highlight Major Variances
(+/- 5%)

Ignore Minor Variances



03. Planning the Answer

Understand the Links

Understand Reasons and
Impacts for Major Variances

Plan the Conclusion. Decide the
Points which Supports
Conclusion



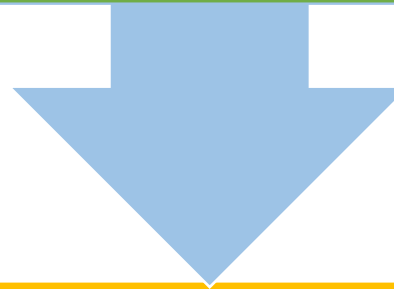
04. Start Writing the Report

Structure
(Next
Slide)

Topics

Explain
What Happened?
Why It Happened?
What are the Impacts?

Do Not Repeat Points



05. Conclusion

Essence

Important Insights

Short

Analysis Report Structure

To : [Relevant Stakeholder]

From : [Your designation]

Subject : Analysis report on Financial position and performance with [Name of the competitor, industry average, prior year]

Date : [Date]

Introduction

This report is based on the financial statements supplied and the ratios calculated above. Although covering many aspects of performance and financial position, the report has been approached from the point of view of [purpose].

Analysis

[Sub Topic E.g. Profitability]

Detailed Analysis

[Sub Topic E.g. Efficiency]

Detailed Analysis

Conclusion

[Summary of analysis based on sub topics above. Highlight important insights.]

Please do not hesitate to contact me for any further clarification.

Profitability Ratios

Gross Profit Margin

$\text{Gross Profit/Sales} \times 100$

Operating Profit Margin

$\text{Operating Profit/Sales} \times 100$

Net Profit Margin

$\text{Profit Before Tax/Sales} \times 100$

Return on Capital Employed
(ROCE)

$\frac{\text{Operating Profit}}{\text{Capital Employed}} \times 100$

Return on Assets (ROA)

$\frac{\text{Operating Profit}}{\text{Total Assets}} \times 100$

Return on Equity
(ROE)

$\frac{\text{Profit After Tax}}{\text{Equity}} \times 100$

GP Margin

Point	Explanation	
Definition	Per rupee sales how much of Gross profits were generated	
Reflects	Manufacturing efficiency and effectiveness of pricing strategy	
Higher the ratio	Higher the manufacturing efficiency Differences in pricing strategies	
How to increase ratio	• Increase Sales ○ Changes to pricing strategy ○ Effective marketing ○ Target driven sales	• Reduce cost of sales ○ Eliminate or exchange idle and unnecessary PPE ○ Economies of scale ○ Budgetary controls to reduce the cost ○ Use of technology to reduce overheads ○ Waste management
Remarks	• Higher gross profit margin enables higher ability to cover the admin, sales and other overheads. • GP margin does not have a standard limit. It depends on industry. ○ E.g. GP margin for trading < manufacturing industry	

OP Margin

Point	Explanation	
Definition	Per rupee sales how much of Operating profits were generated	
Reflects	Operational efficiency and effectiveness in operations management	
Higher the ratio	Higher the operational efficiency and effectiveness in management	
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy	• Reduce Expenses ○ Eliminate or exchange idle and unnecessary assets ○ Economies of scale ○ Budgetary controls to reduce the cost ○ Use of technology to reduce overheads ○ Waste management
Remarks	• OP margin does not have a standard limit. It depends on industry	

NP Margin

Point	Explanation	
Definition	Per rupee sales how much of Net profits were generated	
Reflects	Overall efficiency and effectiveness in management	
Higher the ratio	Higher the efficiency and management Higher savings for company growth Higher ability to declare dividends	
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy	• Reduce Expenses ○ Eliminate or exchange idle and unnecessary assets ○ Economies of scale ○ Budgetary controls to reduce the cost ○ Use of technology to reduce overheads ○ Waste management ○ Reschedule the existing borrowings at higher rates ○ Tax planning
Remarks	• NP margin does not have a standard limit. It depends on industry	

ROCE

Point	Explanation		
Definition	Per rupee capital employed how much of operating profit were generated		
Higher the ratio	• Higher return for capital employed investment • Higher value created to financial providers		
How to increase ratio	<table border="0"> <tr> <td> • Increase earnings ○ Effective marketing, branding etc. ○ Target driven sales, incentives ○ Cost reduction through economies of scale and controls </td><td> • Reduce capital employed ○ Reducing the debt capital ○ Eliminate or exchange idle and unnecessary assets ○ Rent out assets than purchasing </td></tr> </table>	• Increase earnings ○ Effective marketing, branding etc. ○ Target driven sales, incentives ○ Cost reduction through economies of scale and controls	• Reduce capital employed ○ Reducing the debt capital ○ Eliminate or exchange idle and unnecessary assets ○ Rent out assets than purchasing
• Increase earnings ○ Effective marketing, branding etc. ○ Target driven sales, incentives ○ Cost reduction through economies of scale and controls	• Reduce capital employed ○ Reducing the debt capital ○ Eliminate or exchange idle and unnecessary assets ○ Rent out assets than purchasing		
Remarks	• ROCE should be > company's Finance cost. Otherwise it indicates that, the company is not employing its capital efficiently and is not generating shareholder value • The EBIT is taken as the numerator as it reflects the returns (Profit before tax and Interest) to parties reflected under denominator (Shareholders & LT debt providers)		

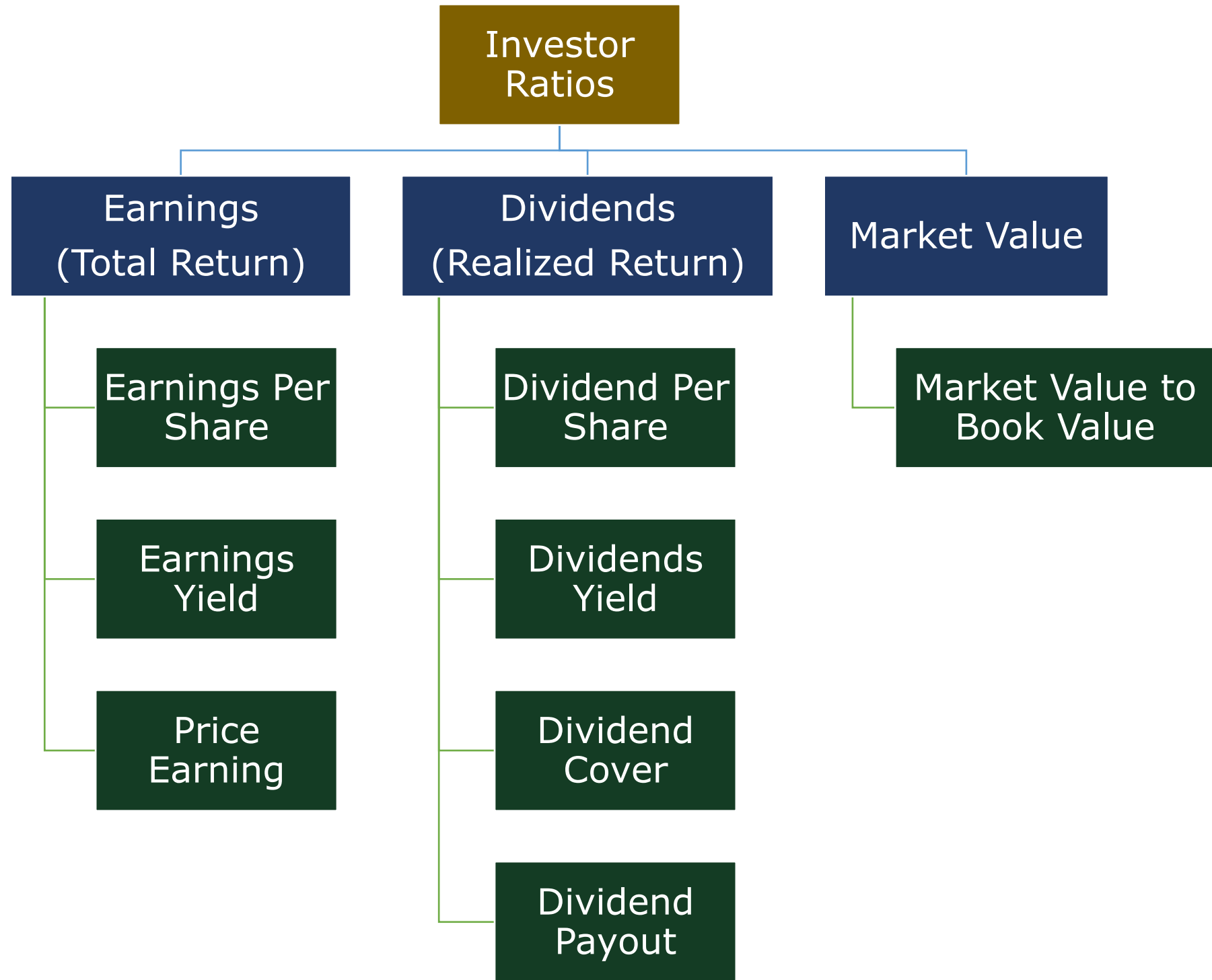
ROE

Point	Explanation
Definition	Per rupee equity how much of net profits were generated
Reflects	How well equity capital invested was able to generate profits
Higher the ratio	More efficient use of equity capital in generating profits
How to increase ratio	• Increase earnings ○ Effective marketing ○ Target driven sales ○ Cost reduction through controls ○ Tax planning strategies ○ Reduced finance cost
Remarks	• The Net profit after preference dividend is taken as the numerator as it reflects the return due to shareholders • This ratio is not widely used

ROA

Point	Explanation
Definition	Per rupee total assets how much of operating profits were generated
Reflects	How well total assets were able to generate an operating profit
Higher the ratio	More efficient use of total assets in generating profits
How to increase ratio	• Increase earnings ○ Effective marketing ○ Target driven sales ○ Cost reduction through controls • Reduce Total assets ○ Eliminate or exchange idle and unnecessary assets ○ Rent out assets than purchasing
Remarks	• The EBIT is taken as the numerator as EBIT reflects the returns (Profit before tax and Interest) due to parties reflected under denominator (Shareholders and Debt providers) • Return on Investment (ROI) and ROA both have similar meaning.

Investor Ratios



Earning Based Ratios

Earnings Per Share
(EPS)

$$\frac{\text{Profits Attributable for Ord Shareholders}}{\text{Weighted Average Number of Ord Shares}}$$

Earnings Yield

$$\frac{\text{EPS}}{\text{Market Price Share}} \times 100$$

Price Earning (PE)

$$\frac{\text{MPS}}{\text{EPS}}$$

EPS

Point	Explanation
Definition of Ratio	Per ordinary share, how much of earnings has been generated
Reflects	Distribution of Earnings among the Ordinary Shareholders
Higher the ratio	• Higher earnings generated for ordinary shareholders • Higher ability to pay dividends
How to increase the ratio	• Increase earnings ○ Increase sales ○ Reduce expenses ○ Reduce interest and tax expenses
Remarks	• The EPS helps in conducting valuations of companies. (PE based pricing method)

Earnings Yield

Point	Explanation
Definition of Ratio	Per rupee investment, how much of earnings will be generated
Reflects	• Earnings potential • Relationship between EPS (Return) to Market Price per Share (Cost)
Higher the ratio	• Higher earnings for Investment
How to increase the ratio	• Increase earnings ○ Increase sales ○ Reduce expenses ○ Reduce interest and tax expenses

Price Earning

Point	Explanation
Definition of Ratio	Number of times of Earnings required to recover the investment (Investment Recovery Period)
Reflects	• Investors faith over growth potential • Investor's Risk Appetite
Higher the ratio	• Investors are having growth prospects about the company • Mature Company
Lower the ratio	• Either ○ Company is doing exceptionally well in return ○ Company may be undervalued
Remarks	• PE is used in investment selections

Dividends Based Ratios

Dividend Per Share
(DPS)

$$\frac{\text{Ordinary Share Dividends}}{\text{Weighted Average Number of Ord Shares}}$$

Dividend Yield

$$\frac{\text{DPS}}{\text{Market Price Share}} \times 100$$

Dividend Cover

$$\frac{\text{EPS}}{\text{DPS}}$$

Dividend Payout

$$\frac{\text{DPS}}{\text{EPS}} \times 100$$

Dividends Per Share

Point	Explanation
Definition of Ratio	Per Share How much of Dividend Paid (Realized Return)
Reflects	• Dividend received to Single share
Higher the ratio	• Dividend seeking investors get encouraged • Affect the growth, as dividend is a cash outflow
How to increase the ratio	• Increase amount of dividend paid

Dividends Yield

Point	Explanation
Definition of Ratio	Per rupee investment (Cost) how much of dividends (Realized Return) being paid
Reflects	• Dividend payout per market price
Higher the ratio	• Investors gets encouraged • Affect the growth, as dividend is a cash outflow
How to increase the ratio	• Increase dividends

Dividend Cover

Point	Explanation
Definition of Ratio	How many times dividends can be paid out of the earnings
Reflects	• Dividend coverage over earnings • Dividend policy
Higher the ratio	• Investors are discouraged as low dividend paid • Beneficial for the growth
How to increase the ratio	• Reduce dividends

Dividend Payout

Point	Explanation
Definition of Ratio	How much of earnings are being distributed among ordinary shareholders.
Reflects	• Dividend policy • Retention of earnings ($1 - \text{Dividend payout}$)
Higher the ratio	• Investors are encouraged • Affect the growth
How to increase the ratio	• Increase dividends

Market Value to Book Value

Market Value to Book Value

MPS

BVPS

Book Value Per Share

Net Assets

Weighted Average Number of Ord Shares

Point	Explanation
Definition of Ratio	How many times market value is higher than book value
Reflects	• Market value compared to book value • Asset impairments if any • Availability of off-balance sheet assets and liabilities
Higher the ratio	• Existence of off-balance sheet assets • Undervaluation of assets
How to increase the ratio	• Fair value assets • Recognize off balance sheet assets
Remarks	• Book value per share will be calculated as follows • Book value of Net assets/ Weighted average number of shares

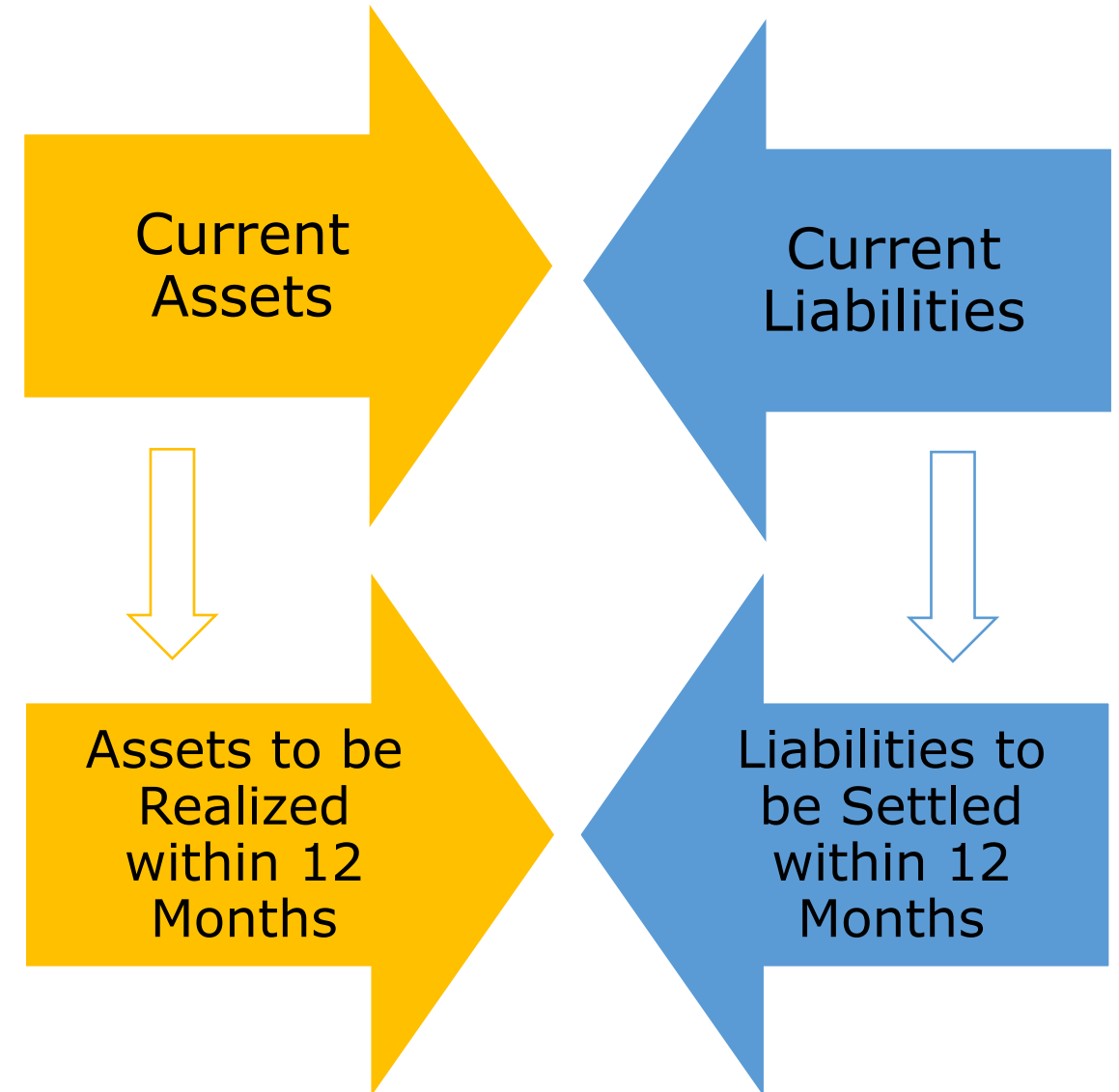
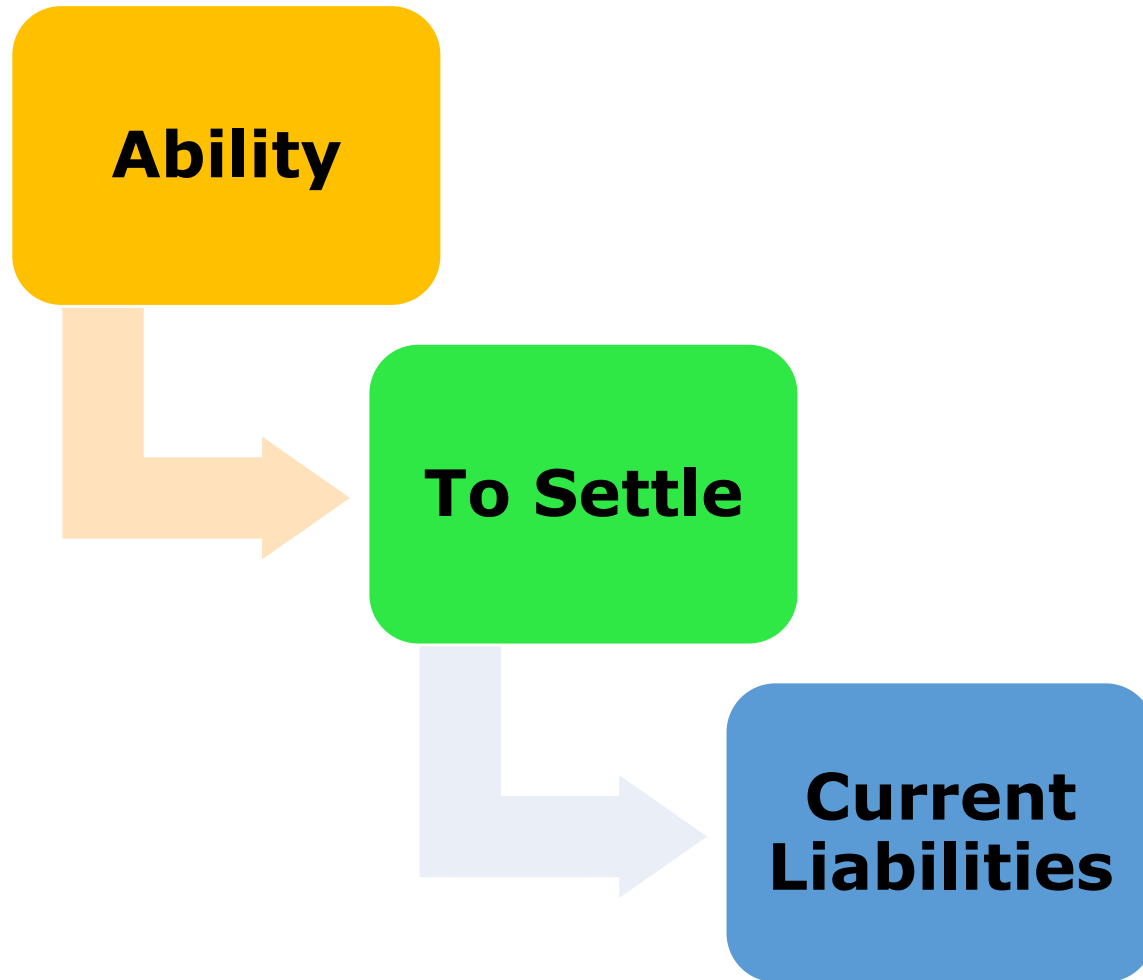
Enterprise Value to EBITDA

Enterprise Value to EBITDA

$$\frac{\text{Market Capitalization} + \text{Total Debt} - \text{Cash \& Cash Equivalents}}{\text{Earnings Before Interest, Tax, Depreciation and Amortization}}$$

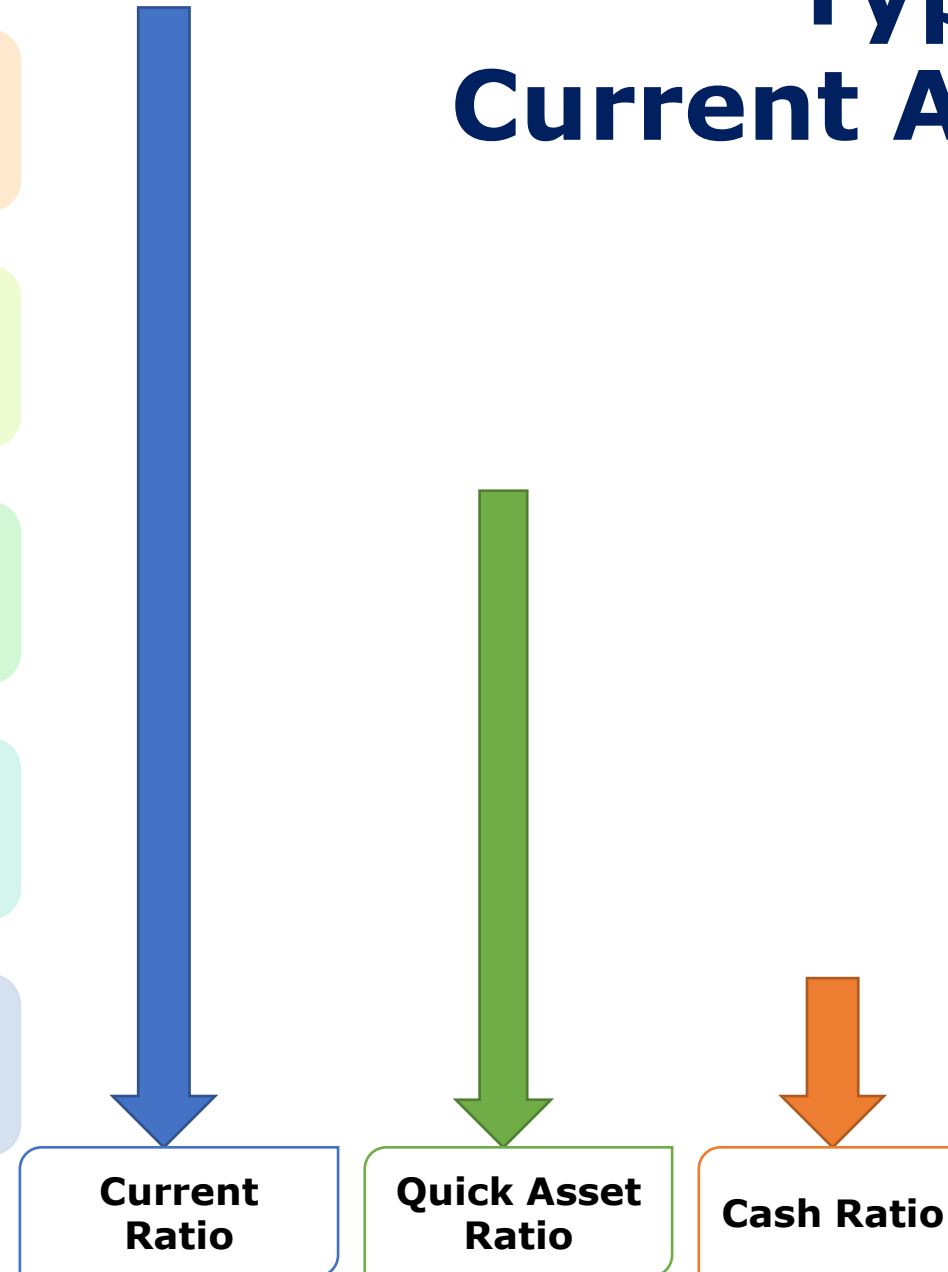
Point	Explanation
Definition of Ratio	How strong the operating cash flows are to receiver the business value.
Reflects	• Used as an alternative to P/E ratio • Capital structural neutral • Helps to compare companies with different levels of debt and tax rates.

Liquidity Ratios



Different Types of Current Assets

Inventory	• Less Liquid
Prepayments	• Less Liquid
Trade Receivables	• High Liquid
Short Term Investments	• High Liquid
Cash & Cash Equivalents	• 100% Liquid



Liquidity Ratios (Times)

Current Ratio

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Quick Asset Ratio

$$\frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Cash Ratio

$$\frac{\text{Cash and Cash Equivalents}}{\text{Current Liabilities}}$$

Current Ratio

Point	Explanation	
Definition	Per rupee Current Liability how much of Current Assets are available	
Reflects	Adequacy of current assets to settle current liabilities	
Higher the ratio	Strong ability to settle current liabilities Strong liquid position	
How to increase ratio	• Reduce current liabilities ○ Reschedule existing borrowings ○ Overcome investments in non-current assets using short term loans ○ Dispose idle and unnecessary assets and settle loans taken at higher rates ○ Rent out properties than purchasing	• Increase current assets ○ Increase sales ○ Strengthen recoveries from debtors
Remarks	• There's no specific standard or norm for current ratio. Depending on industry and company's power it may vary ○ E.g. Higher current ratio in manufacturing entity compared to lower current ratio in service entity	

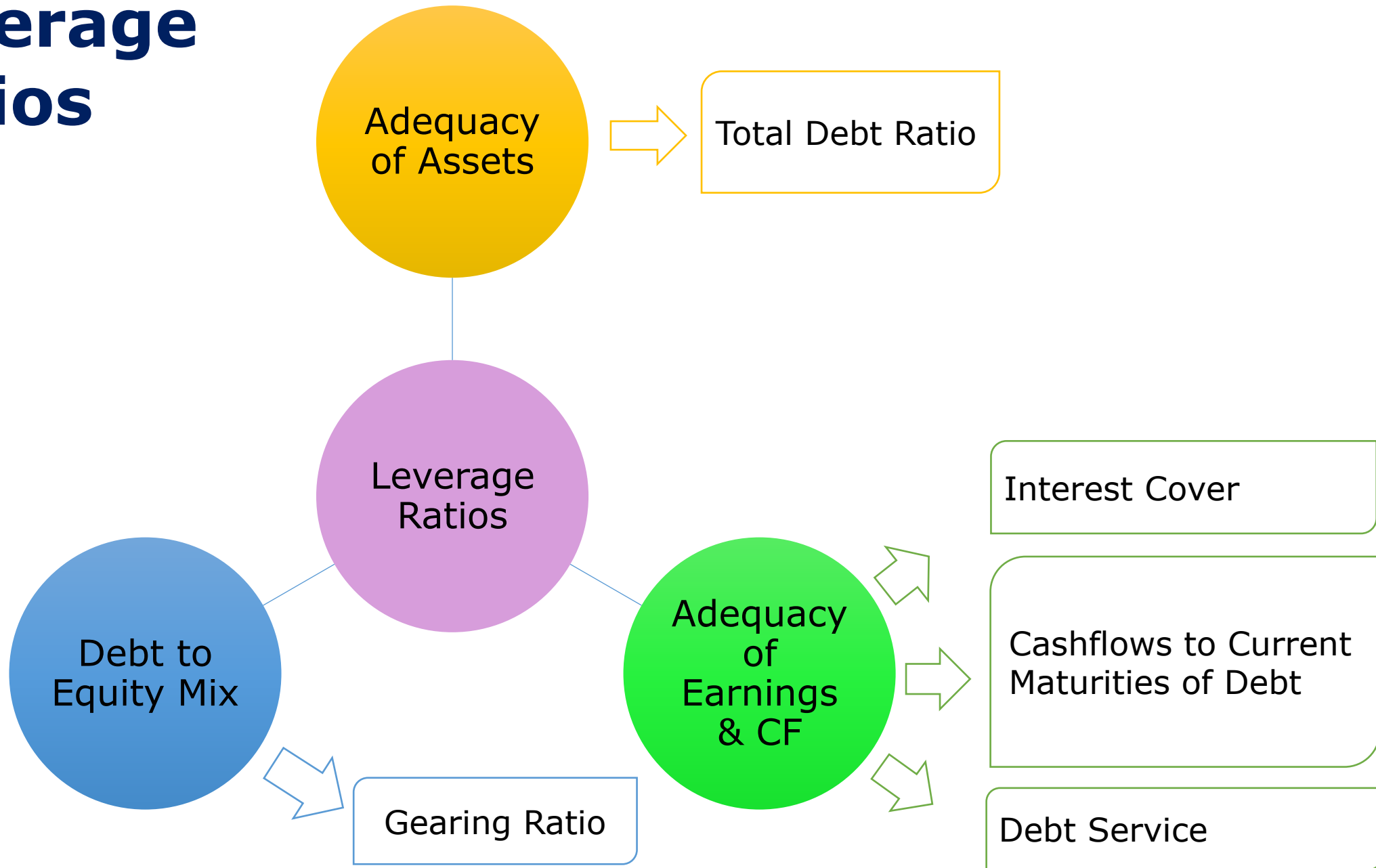
Quick Asset (Acid Test) Ratio

Point	Explanation	
Quick Assets	Current Assets – Inventory - Prepayments	
Definition	How much of Quick Assets available, per rupee Current Liability	
Reflects	Adequacy of quick assets to settle current liabilities	
Higher the ratio	Strong ability to settle current liabilities Stronger Liquidity position	
How to increase ratio	• Reduce current liabilities ○ Reschedule existing borrowings ○ Overcome investments in non-current assets using short term loans ○ Dispose idle and unnecessary assets and repay the loans taken at higher interest rates ○ Rent out properties than purchasing	• Increase current assets ○ Increase sales ○ Strengthen recoveries from debtors
Remarks	• There's no standard or norm. Depending on industry and company's power it may vary	

Cash Ratio

Point	Explanation
Definition of Ratio	How much of Cash and Cash Equivalents available, per rupee Current Liability
Reflects	Adequacy of cash to settle current liabilities
Higher the ratio	Strong ability to service current liabilities Stronger Liquidity position
How to increase ratio	• Reduce current liabilities ○ Reschedule existing borrowings ○ Overcome non-current asset investments using short term loans ○ Dispose idle and unnecessary assets and repay the loans taken at higher interest rates ○ Rent out properties than purchasing

Leverage Ratios



Leverage Ratios

Total Debt Ratio

$$\frac{\text{Total Assets} - \text{Equity}}{\text{Total Assets}} \times 100$$

Gearing Ratio

$$\frac{\text{Interest Bearing Borrowings}}{\text{Equity}} \times 100$$

Gearing Ratio

$$\frac{\text{Interest Bearing Borrowings}}{\text{Equity} + \text{Interest Bearing Borrowings}} \times 100$$

Interest Cover

$$\frac{\text{Operating Profit}}{\text{Interest Expense}}$$

Debt Service

$$\frac{\text{EBITDA}}{\text{Interest} + \text{Current Portion of Long Term Debt}}$$

Total Debt Ratio

Point	Explanation
Definition	• Per rupee Total Asset, how much of Debt Financing has been used • Availability of Assets to cover Total Debt
Reflects	• Proportion of Total Assets financed through Debt • Long term solvency
Lower the ratio	• Lower solvency risk (inability to meet financial obligations) • Lower risk of obtaining further loans • Higher retained earnings due to lower interest charge • Not beneficial for a growth oriented entity. As interest is a fixed expense. Despite losses amount need to be paid
How to reduce the ratio	• Reduce Debt financing ○ Rent out assets than purchasing ○ Eliminate or exchange idle and unnecessary assets and utilize those funds to settle debts • Increase Equity ○ Increased earnings (Increase sales and reduce expenses) ○ Raise capital from shares or rights issues and utilize those funds to settle debt at higher cost

Gearing Ratio

Point	Explanation
Definition	Per rupee Equity Capital, how much of Debt Capital is available or Per rupee Capital Employed how much of Debt capital is available
Reflects	Debt to equity composition of an entity Long term solvency
Lower the ratio	• Lower solvency risk • Lower risk of obtaining further loans • Higher retained earnings due to lower interest charge • Not beneficial for a growth oriented entity. As interest is a fixed expense. Despite losses amount need to be paid
How to reduce the ratio	• Reduce Debt financing ○ Reschedule the existing debt at a lower rate ○ Rent out assets than purchasing ○ Eliminate or exchange idle assets and utilize those funds to settle debts • Increase Equity ○ Increased earnings (Increase sales and reduce expenses) ○ Raise capital from shares or rights issues and utilize those funds to settle debt at higher cost

Gearing Ratio

Point	Explanation
Remarks	○ If the gearing ratio is calculated using following formula $\text{Interest Bearing Debt} / (\text{Equity} + \text{Interest Bearing Debt}) * 100$ • >50% - High Geared • 50%-25% - Normally Geared • <25% - Low Geared ○ The gearing ratio can be calculated using following formula $\text{Interest Bearing Debt} / \text{Equity} * 100$ • >100% - High Geared • 100%-50% - Normally Geared • <50% - Low Geared

Interest Cover

Point	Explanation
Definition	How many times Interest can be paid out of Operating Profit
Reflects	Adequacy of earnings to settle interest payments
Higher the ratio	• Higher ability to pay interest • Higher ability to obtain further loans • Lower risk of defaulting interest payments • Lower solvency risks
How to reduce the ratio	• Increase earnings ○ Increase sales (Marketing, incentive driven sales etc.) ○ Reduce manufacturing and other operating expenses • Reduce interest expense ○ Reschedule the existing debt at a lower rate ○ Rent out assets than purchasing ○ Eliminate or exchange idle and unnecessary assets and utilize those funds to settle debts

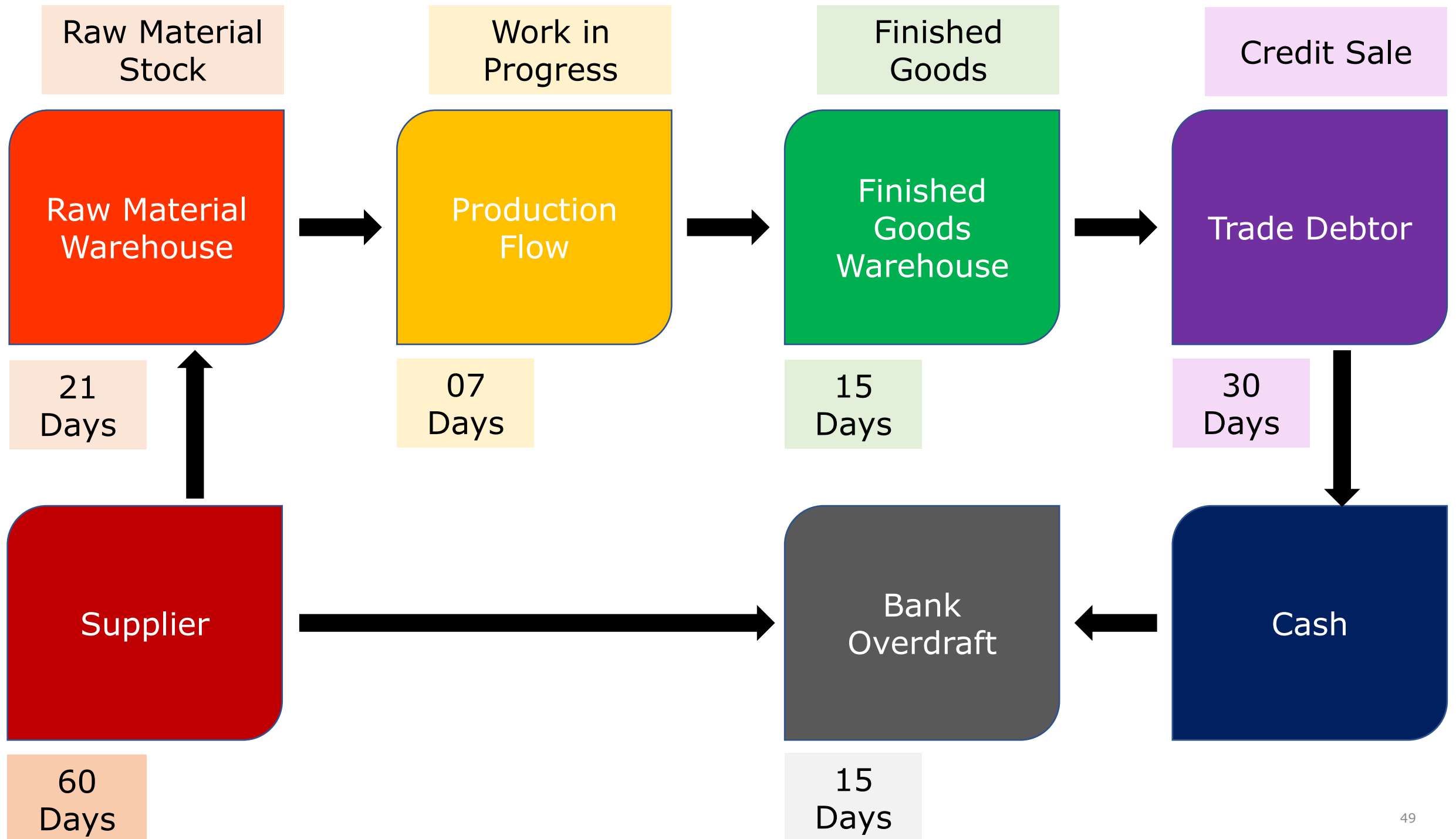
Debt Service

Point	Explanation
Definition of Ratio	How many times current portion of long-term debt and loan interest can be paid out of the operating cashflow
Reflects	Availability of operating cashflows to service current portion of long-term debt and interest
Higher the ratio	• Higher ability to pay current portion of long term debt • Higher ability to obtain further loans • Lower risk of defaulting loan repayment and Interest
How to reduce the ratio	• Increase earnings ○ Increase sales (Marketing, incentive driven sales etc.) ○ Reduce manufacturing and other operating expenses • Reduce interest expense ○ Reschedule the existing loan for an extended period ○ Reschedule the existing loans to lower interest rates ○ Rent assets than purchasing ○ Eliminate or exchange idle and unnecessary assets and utilize those funds to settle debts
Remarks	• Less than 01 ratio indicates, operating cash flows are inadequate to service the debt, this would mean that the borrower would have to obtain equity capital or debt capital or sell the non-current assets to service the debt.

Efficiency Ratios

Asset Utilization assessed against
Outcome generated!

- ABC purchased Rs.4Mn worth of raw materials (Fabric) from Supplier Boaz. Supplier offered a 60 days credit period. Fabric was stored in raw materials warehouse for 21 days until the orders were received.
- Then raw materials were issued to production flow and production went over a period of 07 days.
- The finished garments were stored in finished goods warehouse for 15 days before the sale was occurred.
- Finished goods were sold for Rs.6Mn. The debtor was given a 30 days credit period.
- A 15 days bank overdraft was obtained to settle the supplier on due date.
- Once the debtor settled the amount, bank overdraft was settled.



How many days does raw materials remained in raw material warehouse?	21 Days	Raw Material Holding Period
In a year, on average how many times raw materials are issued to production flow?	365/21 17 Times	Raw Material Turnover
How many days it took to convert raw materials to finished goods (Production lead time)?	07 Days	Work in Progress Holding Period
In a year, on average, What is the number of production batches?	365/07 52 Times	Work in Progress Turnover

How many days does finished goods remained in warehouse before becoming a sale?	15 Days	Finished Goods Holding Period
In a year, on average how many times does finished goods were sold?	365/15 24 Times	Finished Goods Turnover
How many days offered to trade debtors as credit period?	30 Days	Debt Collection Period
In a year, on average, how many times does a trade debtor has settled the due amounts?	365/30 12 Times	Debtor Turnover

How many days offered by suppliers as credit period?	60 Days	Credit Settlement Period
In a year, on average, how many times does entity has settled the trade payables?	$\frac{365}{60}$ 06 Times	Creditor's Turnover
How many days it take to convert raw material to cash?	RM Holding + WIP Holding + FG Holding + Debt Collection $21 \text{ Days} + 07 \text{ Days} + 15 \text{ Days} + 30 \text{ Days}$ 75 Days Operating Cycle	
What is the days gap between cash collection and cash payment?	Operating Cycle – Credit Settlement $75 \text{ Days} - 60 \text{ Days} = 15 \text{ Days}$ Cash Cycle	

Asset Turnover Ratios (Times)

Total Asset
Turnover

- $\text{Sales} / \text{Total Assets}$

Fixed Assets
Turnover

- $\text{Sales} / \text{Fixed Assets}$

Working Capital
Turnover

- $\text{Sales} / \text{Working Capital}$

Total Asset Turnover

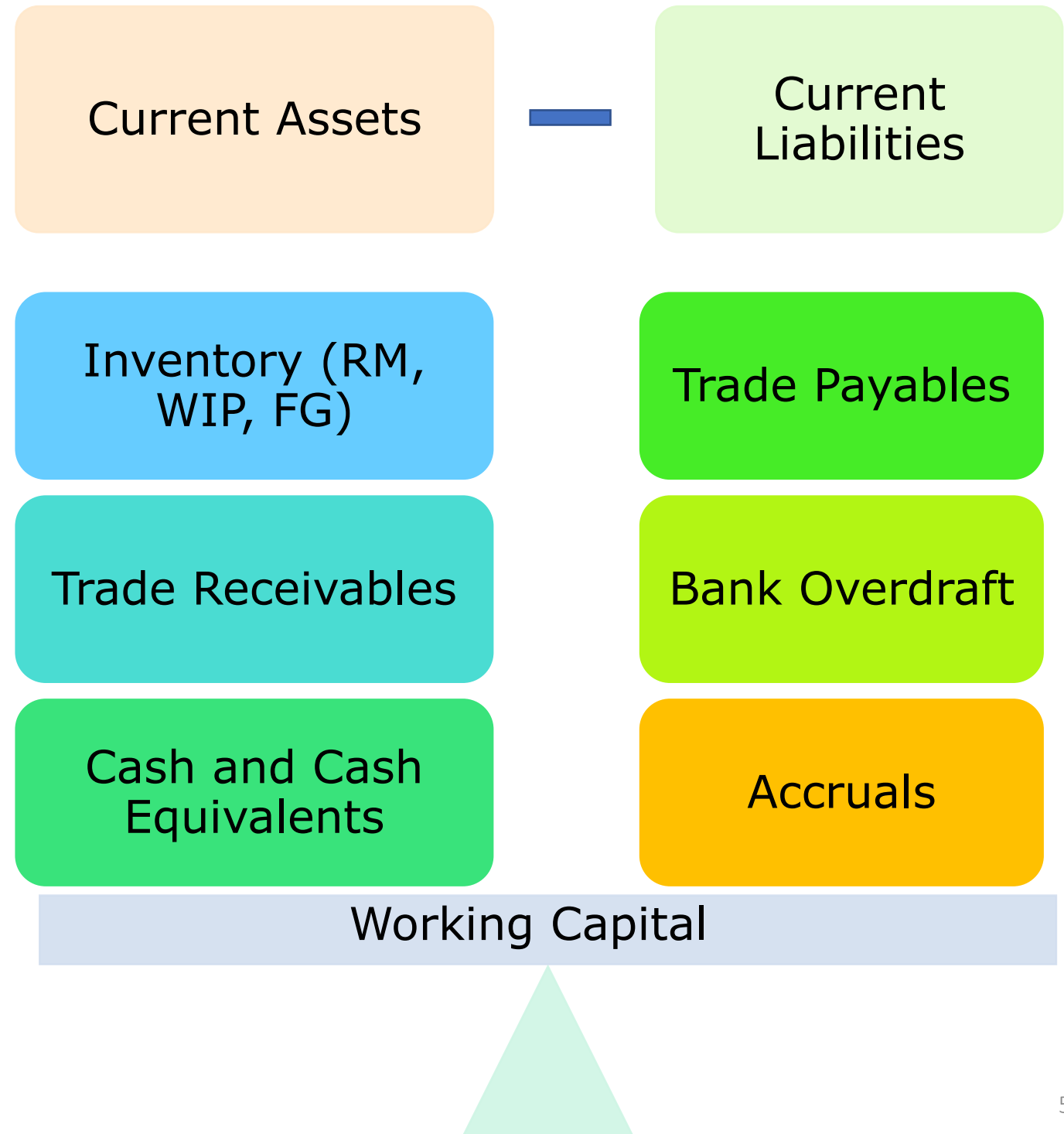
Point	Explanation
Definition	Per rupee asset how many times sales were generated in a given period of time
Reflects	Asset utilization in terms of generating sales
Higher the ratio	Higher the asset utilization Lower overstatements in assets Lower idle and unnecessary assets
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce total assets ○ Rent out assets than purchasing ○ Conduct an analysis of total assets and identify idle assets, unnecessary assets, impairments and reduce overstatement in assets. ○ Strengthen asset maintenance to ensure effective utilization

Fixed Asset Turnover

Point	Explanation
Definition of Ratio	Per rupee fixed asset how many times sales were generated in a given period of time
Reflects	Fixed asset utilization in terms of generating sales
Higher the ratio	Higher fixed asset utilization Lower overstatements in fixed assets Lower idle and unnecessary fixed assets
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce fixed assets ○ Rent out assets than purchasing ○ Conduct an analysis of total assets and identify idle assets, unnecessary assets, impairments and reduce overstatement in assets. ○ Strengthen the asset maintenance to ensure effective utilization

Working Capital

- Capital required to run routine operations.



Working Capital Turnover

Point	Explanation
Definition of Ratio	Per rupee working capital how many times sales were generated in a period of time
Reflects	Working capital utilization in terms of generating sales
Higher the ratio	Higher the working capital utilization
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce working capital ○ Strengthen debt recoveries ○ Write off slow moving inventories ○ Negotiate settlement periods with creditors ○ Negotiate with banks and refinance the existing loan commitments ○ Rent out assets than purchasing
Remarks	• Working Capital includes management of Inventories, Accounts receivable, Accounts payable, Cash etc.

Inventory Turnover Ratios (Times)

Raw Material Turnover

Raw Material Consumption

Closing Raw Materials

Work in Progress Turnover

Cost of Production

Closing Work in Progress

Finished Goods Turnover

Cost of Sales

Closing Finished Goods

Inventory Holding Ratios (Days)

**Raw Material
Holding Period**

$$\frac{365}{\text{Raw Material Turnover}}$$

**Raw Material
Holding Period**

$$\frac{365}{\text{RM Consumption}} \times \text{Closing Raw Material Stock}$$

**Work in Progress
Holding Period**

$$\frac{365}{\text{Work in Progress Turnover}}$$

**Work in Progress
Holding Period**

$$\frac{365}{\text{Cost of Production}} \times \text{Closing Work in Progress Stock}$$

Inventory Holding Ratios (Days)

**Finished Goods
Holding Period**

365

Finished Goods Turnover

**Finished Goods
Holding Period**

365

Cost of Sales

X

Closing Finished
Goods Stock

Raw Material Turnover

Point	Explanation
Definition of Ratio	How many times raw materials have been issued to the production during a given period of time
Reflects	Movability of raw materials from Raw materials warehouse to production
Higher the ratio	Highly moving raw materials Lower slow-moving inventories Lower risk of impairment, obsolescence Lower risk of cash tied up in raw materials
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce raw materials stock ○ Write off slow moving inventories ○ Increase efficiency in operations ○ Increase effectiveness warehouse management

Raw Material Holding Period

Point	Explanation
Definition of Ratio	How many days raw materials were within the Raw Material warehouse prior to be issued to production
Reflects	Movability of raw materials
Lower the ratio	Highly moving raw materials Lower slow-moving inventories Lower risk of impairment, obsolescence Lower risk of cash tied up in raw materials
How to decrease ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce raw materials stock ○ Write off slow moving inventories ○ Increase efficiency in operations ○ Increase effectiveness warehouse management

Work in Progress Turnover

Point	Explanation
Definition of Ratio	How many times work in progress have become finished goods during a given period of time (No. of Production Batches)
Reflects	Manufacturing efficiency
Higher the ratio	Highly moving work in progress Lower slow-moving work in progress Lower risk of impairment, obsolescence Lower risk of cash tied up in work in progress
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce work in progress stock ○ Write off slow moving inventories ○ Increase efficiency in operations

Work in Progress Holding Period

Point	Explanation
Definition of Ratio	How many days work in progress were within the Production prior becoming a finished good (Manufacturing Time)
Reflects	Manufacturing efficiency
Lower the ratio	Highly moving work in progress Lower slow-moving work in progress Lower risk of impairment, obsolescence Lower risk of cash tied up in work in progress
How to decrease ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce work in progress stock ○ Write off slow moving inventories ○ Increase efficiency in operations

Finished Goods Turnover

Point	Explanation
Definition of Ratio	How many times finished goods have become sales during a given period of time
Reflects	Movability and income generation frequency of finished goods
Higher the ratio	Highly moving finished goods Lower slow-moving finished goods Lower risk of impairment, obsolescence Lower risk of cash tied up in finished goods
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce finished goods stock ○ Write off slow moving inventories ○ Increase efficiency in operations ○ Increase effectiveness warehouse management

Finished Goods Holding Period

Point	Explanation
Definition of Ratio	How many days Finished Goods were within the Finished Goods warehouse prior becoming a sale
Reflects	Movability and income generation frequency of finished goods
Lower the ratio	Highly moving finished goods Lower slow-moving finished goods Lower risk of impairment, obsolescence Lower risk of cash tied up in finished goods
How to decrease ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce finished goods stock ○ Write off slow moving inventories ○ Increase efficiency in operations ○ Increase effectiveness warehouse management

Debtor Turnover (Times)

Debtor Turnover

$$\frac{\text{Credit Sales}}{\text{Closing Debtors}}$$

Debt Collection Period (Days)

**Debt Collection
Period**

$$\frac{365}{\text{Debtor Turnover}}$$

**Debt Collection
Period**

$$\frac{365}{\text{Credit Sales}} \times \text{Closing Debtors}$$

Debtor Turnover

Point	Explanation
Definition	How many times a debtor has settled the debt in a given period of time
Reflects	Frequency of debt recoveries
Higher the ratio	Higher recoveries Aggressive recovering strategy Lower risk of debtor impairment Negative impacts over relationships with the customers
How to increase ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce debtors ○ Increase aggressiveness of debt collection ○ Strengthen recovery team ○ Write off impaired debtors ○ Factoring
Remarks	○ In the absence of Credit Sales put an assumption and assume all sales to be Credit Sales

Debtor Collection Period

Point	Explanation
Definition of Ratio	How many days an average debtor takes to settle the debt.
Reflects	Credit period given to debtors
Lower the ratio	Higher recoveries Aggressive recovering strategy Conservative credit policy Lower risk of debtor impairment Negative impacts over relationships with the customers
How to decrease ratio	• Increase Sales ○ Effective marketing ○ Target driven sales ○ Changes to pricing strategy • Reduce debtors ○ Increase aggressiveness of debt collection ○ Strengthen recovery team ○ Write off impaired debtors ○ Factoring

Creditor Turnover (Times)

Creditor Turnover

Credit Purchases

Closing Creditors

Credit Settlement Period (Days)

Credit Settlement Period

365

Creditor Turnover

Credit Settlement Period

365

Credit Purchases

X

Closing Creditors

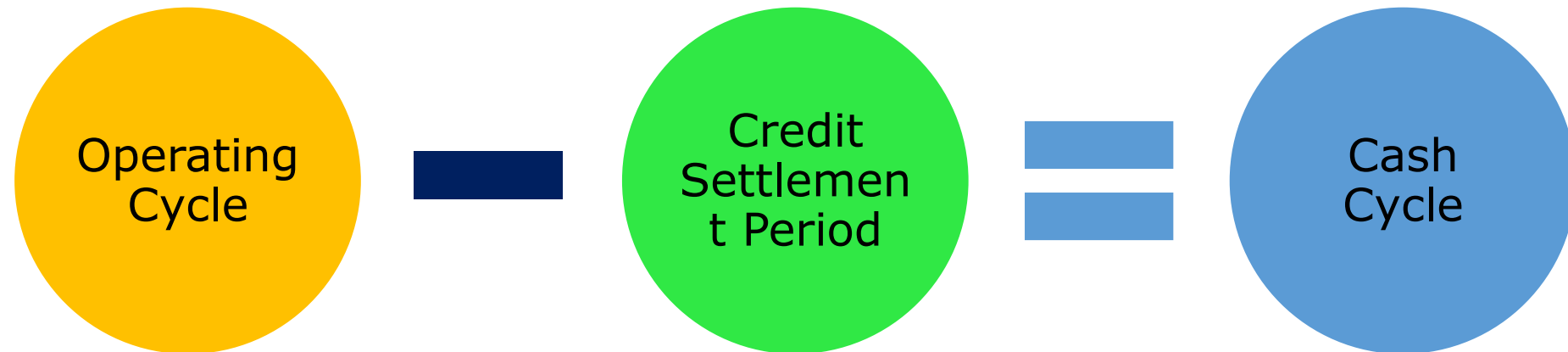
Operating Cycle

How long it takes
an inventory to
realize into cash?



Cash Cycle

Time Gap between
Cash Collection and
Disbursement



Du Pont Analysis

- The DuPont analysis is a framework for analyzing a company's fundamental performance. This DuPont analysis breaks out the different drivers of **return on equity (ROE)**, allowing company managers and investors to focus on them individually and identify strengths and weaknesses.
- Different drivers of ROE are;
 - **Operating efficiency**, which is represented by **Net Profit Margin** or net income divided by total sales or revenue.
 - **Asset Utilization Efficiency**, which is measured by the **Asset Turnover Ratio**
 - **Financial leverage**, a metric that is measured by the **Equity Multiplier**, which is equal to average assets divided by average equity

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Revenue}} \times \frac{\text{Revenue}}{\text{Average Total Assets}} \times \frac{\text{Average Total Assets}}{\text{Average Total Equity}}$$

Du Pont Analysis

$$\text{DuPont Analysis} = \text{Net Profit Margin} \times \text{AT} \times \text{EM}$$


$$\text{Profit Margin} = \frac{\text{Net Income}}{\text{Revenue}} = \frac{\$0.15}{\$1.00} = 15\%$$


$$\text{Asset Turnover Ratio} = \frac{\text{Revenue}}{\text{Average Assets}} = \frac{\$1,000}{\$100} = 10$$

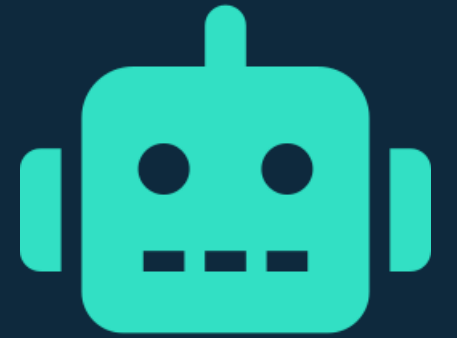

$$\text{Financial Leverage} = \frac{\text{Average Assets}}{\text{Average Equity}} = \frac{\$1,000}{\$250} = 4$$

AI & Data Analytics

Enhancement of Performance

Machine Learning | NLP | Anomaly Detection | Blockchain | AI Governance

Finance transforms from retrospective scorekeeper → forward-looking strategic partner



AI TOOLS IN FINANCIAL PERFORMANCE ANALYSIS



Machine Learning

Predictive Forecasting

- Forecast revenue, costs, credit defaults
- Mean Absolute Error (MAE) = average forecast deviation
- R-squared: How much variance is explained?
- Back-test on withheld historical data
- Feature importance: What really drives the forecast?

Example: Bank ML model → 85% accuracy predicting defaults 90 days ahead. Saved Rs. 250M in credit losses.



Natural Language Processing

Narrative Intelligence

- Extract sentiment from earnings calls & filings
- Score range: -1 (negative) to +1 (positive)
- Detect disconnects between management and market
- Precision vs Recall trade-off for risk detection
- 60% Recall misses 4 of 10 known risks!

Example: Acquisition press release +0.75 vs media coverage +0.15 → 0.60 sentiment gap = reputational risk.



Anomaly Detection

Continuous Monitoring

- Z-Score: Deviations $> 3.0 \sigma$ trigger review
- Isolation Forest: Novel fraud pattern detection
- Monitors millions of transactions daily
- Calibrate contamination parameter carefully
- Flag inter-company transfers, journal entries

Example: Fee of Rs. 22M vs group avg Rs. 15M ($\sigma=2M$) → Z-score 3.5 → IMMEDIATE investigation.

BLOCKCHAIN INTEGRATION & AI GOVERNANCE FRAMEWORKS

BLOCKCHAIN — INTER-COMPANY RECONCILIATION

Current Problem

15 staff × 20% FTE × Rs. 4,000/hr = Rs. 25M direct cost
+ Rs. 2M disputes + Rs. 3M audit fees = Rs. 30M/year

Blockchain Solution

Distributed immutable ledger — both parties see same record instantly. No month-end manual reconciliation needed.

Proof of Work vs Stake

PoW: Rs. 9M/year energy | PoS: Rs. 90K/year energy
Savings: Rs. 8.91M (99% reduction) — ESG-aligned!

Smart Contracts

10,000 settlements/month × Rs. 150 gas fee = Rs. 18M/year
vs Rs. 30M manual cost → Rs. 12M net savings (40%)

Key Standards

Blockchain: ISO 22739:2020 | Smart Contracts: ISO/TR 23455

AI GOVERNANCE & DATA ETHICS

Data Quality Gate

5% ERP error → 15% profit overstatement (Rs. 80M)
Must validate before AI model ingestion

Algorithmic Bias

Credit model: Rural applicants 15% lower approval — postal codes used as income proxy. Halt & retrain!

Explainable AI (XAI)

SHAP analysis: Why was Rs. 200M flagged?
• Posted after midnight • New vendor • 300% above avg

AI Ethics Committee

Cross-functional oversight mandatory
No model deployment without audit explainability

Data Governance (DAMA)

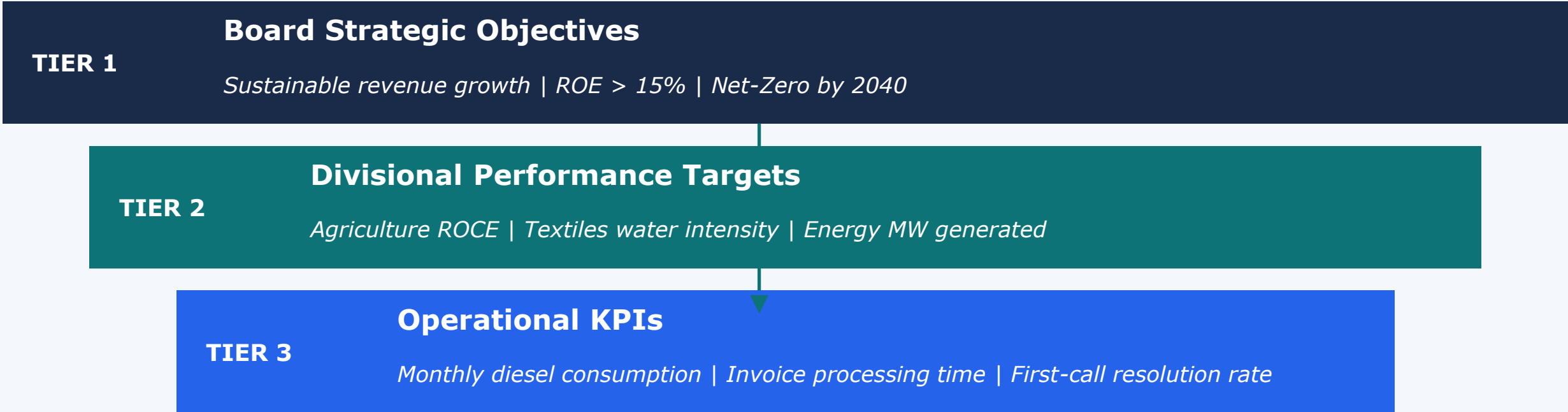
Assign data owners per domain
All AI training data must trace to audited source

Digital Dashboards & Visualisations in Integrated Reporting



Board Intelligence | AI Clustering | AR Technology | Information Governance

BOARD DASHBOARD ARCHITECTURE & KPI CASCADE



Align to Strategy

Every visual links to a corporate plan objective



Leading > Lagging

Prioritise forward-looking signals over past results



Single Source of Truth

All data from one validated, audited source system



SLFRS S1 & S2 Integration

Sustainability metrics alongside financial KPIs

AI-DRIVEN SEGMENTAL ANALYSIS — K-MEANS CLUSTERING

WHY K-MEANS CLUSTERING?

Problem with SLFRS 8 Segments

Traditional segments follow organisational structure. Profitable customer groups subsidise loss-makers — hidden by aggregation.

K-Means Solution

Groups customers by actual behaviour — purchase frequency, order size, service cost, churn risk — revealing true profitability.

Mango Holdings Example

Logistics 'Retail' segment (8% blended margin) → Algorithm reveals:

- High-Volume Cold Chain: +14%
- Sporadic LTL: -2%

Board Action

Immediate repricing for loss-making services. Reallocate assets to profitable segments. Rs. 2.2Bn revenue better optimised.

AI CLUSTER SUMMARY — MANGO HOLDINGS

Cluster	Seg.	Margin	Action
High-Value Loyals	Corp	+35%	Protect & deepen
Strategic Growth	Corp	+22%	Invest — upsell pipeline
Stable Mid-Tier	Corp	+8%	Optimise service cost
SME Premium	SME	+28%	Scale across SME base
Digital-First Retail	Retail	+15%	Acquire more
Bargain Hunters	Retail	-4%	Reprice or migrate
Sporadic LTL	Retail	-8%	Re-activate or exit

Limitations of Ratio Analysis

Historical

Subjectivity

Only Monetary

Negativity Effect

Inflation Ignored

Absence of Standard

Differences in Acc. Policies

Financial Position is a Snap Shot

Manipulations (Window Dressing, Changes in Ac. Estimates etc.)