Financial Acumen for Digital Leaders

DTSL |IIM VISAKHAPATNAM

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Have we heard of these in our organization?

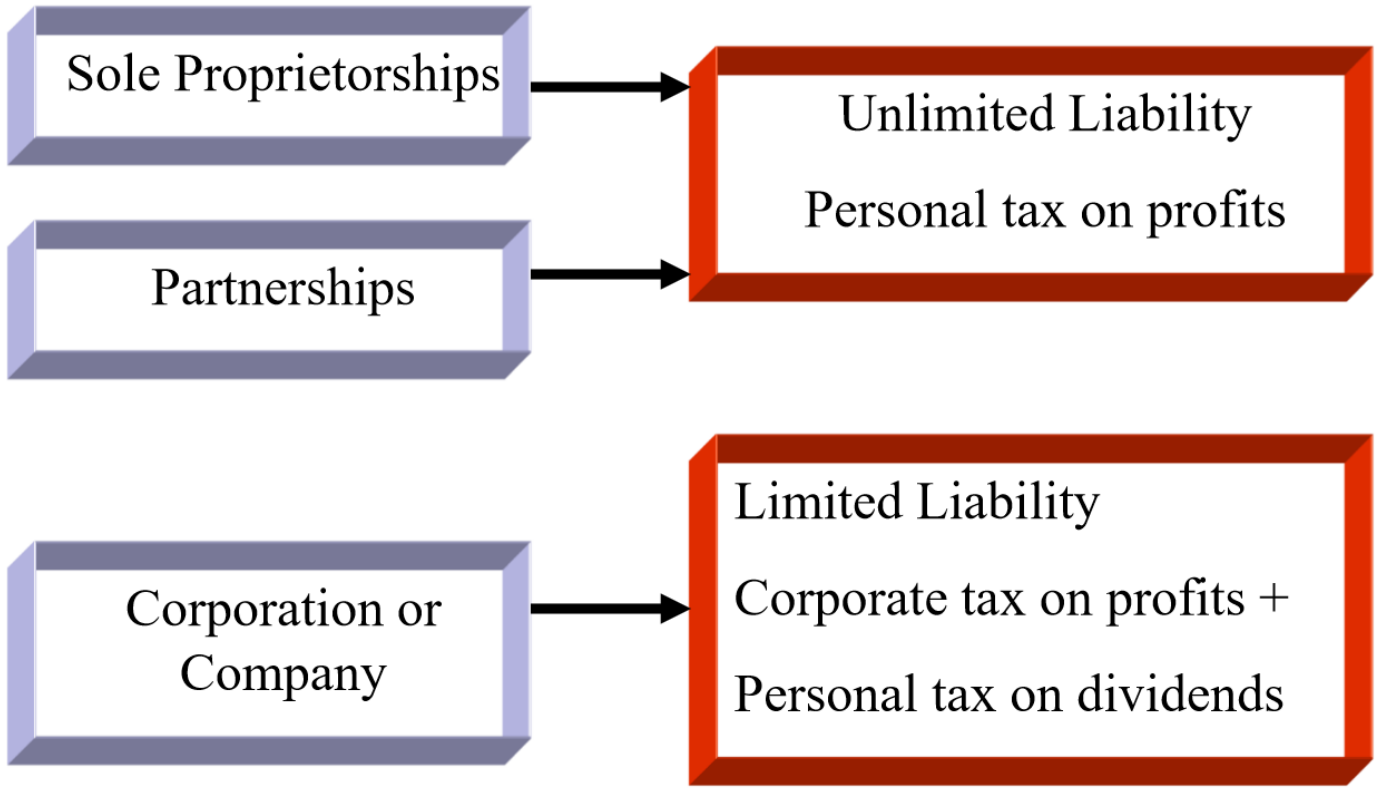
“What’s the ***ROI*** on that software your department wants to buy?”

“The CFO says ***profits are great but money’s tight***— everyone needs to conserve cash.”

“I’ve been studying the figures, and it looks as if your sales reps are sacrificing ***gross margin for revenue***. Have you talked to them about that?”

“Our ***inventory days*** are creeping upward. We have to find a way to reverse that trend.”

Business Structure



Agenda

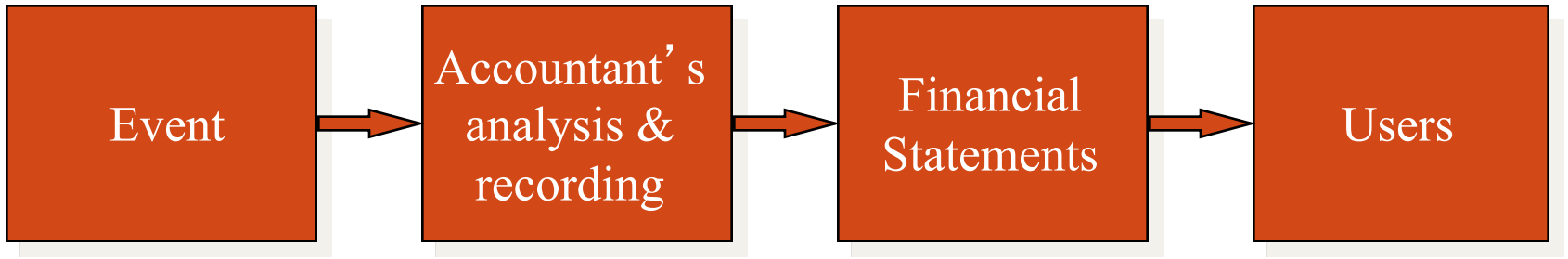
This session provides an overview of financial statements but emphasizes on the interpretation and strategic use of financial information in decision-making

Accounting

The accounting system is a series of steps performed to analyze, record, quantify, accumulate, summarize, classify, report, and interpret economic events and their effects on an organization and to prepare the financial statements.

Accounting as an Aid to Decision Making

Fundamental relationships in the decision-making process:



Accounting as an Aid to Decision Making

Accounting information is useful to anyone who makes decisions that have economic results.

- **Managers** want to know if a **new product will be profitable.**
- **Owners** want to know which **divisions are productive**.
- **Investors** want to know if a **company is a good investment.**
- **Creditors** want to know if they **should extend credit**, how much to extend, and for how long.
- **Government/regulators** want to know if financial statements **conform to requirements**.

Financial and Management Accounting

The primary questions about an organization's success that decision makers want to know are:

What is the financial picture of the organization on a given day?

How well did the organization do during a given period?

Financial and Management Accounting

- **Financial accounting** serves external users.
- **Management accounting** serves internal users, such as top executives, management, and administrators within organizations.

The Annual Report

Annual report - a document prepared by management and distributed to current and potential investors to inform them about the company's past performance and future prospects.

- The annual report is one of the most common sources of financial information used by investors and managers.

The Annual Report

Typically, along with the key financial statements, any annual report would have:

- a letter from corporate management
- a discussion and analysis of recent economic events by management
- footnotes that explain many elements of the financial statements in more detail
- the report of the independent auditors
- a statement of management's responsibility for preparation of the financial statements
- other corporate information

The Key Financial Statements

Balance sheet

Income statement

Cash flow statement

Together these financial statements can help you understand what is going on in your company—or in any other business

Balance sheet

The **balance sheet** shows a company's financial position at a specific point in time. It provides a snapshot of its assets, liabilities, and equity on a given day.

Assets = Liabilities + Owners' Equity

The Balance Sheet

Sections of the balance sheet:

Assets - resources of the firm that are expected to increase or cause future cash flows (everything the firm owns)

Liabilities - obligations of the firm to outsiders or claims against its assets by outsiders (debts of the firm)

Owners' Equity - the residual interest in, or remaining claims against, the firm's assets after deducting liabilities (rights of the owners)

Assets

- Probable future economic benefits
  - Owned by the organisation
  - Has current or future value to the organisation
  - Has been acquired at a cost that can be measured.
- What a business "owns"!
- Examples
  - Cash, Investments, Buildings, Plant and machinery, Patents and copyrights

- **Current** vs **Non-Current** Assets & the,
- Concept of **Depreciation** |& **Amortization**.

Liabilities

- Probable **future sacrifices** of economic benefits
- What a business "owes"
- Contractual, statutory, or constructive
- Examples
  - Loans payable, Warranty obligations, Pensions payable, Income tax payable, Account Payables

Equity

- Residual interest of owners
- Examples
  - Share capital
  - Share premium
  - Revenues & Expenses
  - Dividends
  - Retained profit

Balance Sheet Transactions

The balance sheet is affected by every transaction that an entity encounters.

Each transaction has counterbalancing entries that keep total assets equal to total liabilities and owners' equity,

- i.e., the balance sheet equation ***must always*** be balanced.

Balance Sheet Transactions

Just as the balance sheet equation must always balance, the balance sheet must also always balance.

A balance sheet could be prepared after every transaction, but this practice would be awkward and unnecessary.

- Therefore, balance sheets are usually prepared monthly or on some other periodic schedule.

Income statement

The **income statement** shows the bottom line. It indicates how much profit or loss was generated over a period of time—usually a month, a quarter, or a Year

Net Income = Revenues – Expenses

Cash flow statement

The **cash flow statement** tells where the company's cash came from and where it went.

It shows the relationship between net profit and the change in cash recorded from one balance sheet to the next.

- Operating Activities + Investing Activities + Financing Activities

Cash or Profit, which is more Important?

Let’s understand it with the help of cases:

Case 1: AgriTech Startup at Tech Valley

- **Business Model**: This startup provides advanced IoT-based monitoring systems for agriculture. It offers its solutions on a subscription basis with significant upfront costs due to hardware installation.
- **Sales for the first three months**: $20,000, $30,000, and $45,000.
- **Cost of Goods Sold (COGS)**: 60% of sales, attributed to hardware and installation costs.
- **Monthly Operating Expenses**: $10,000, including software support and staff salaries.
- **Sales Terms**: Due to government incentives for tech adoption in agriculture, the company offers its solutions on credit terms of 75 days to farmers, with govt. guarantee under Digital India Mission.

◦ Let’s see their profit and cash positions…!

Cash or Profit, which is more Important? (contd…)

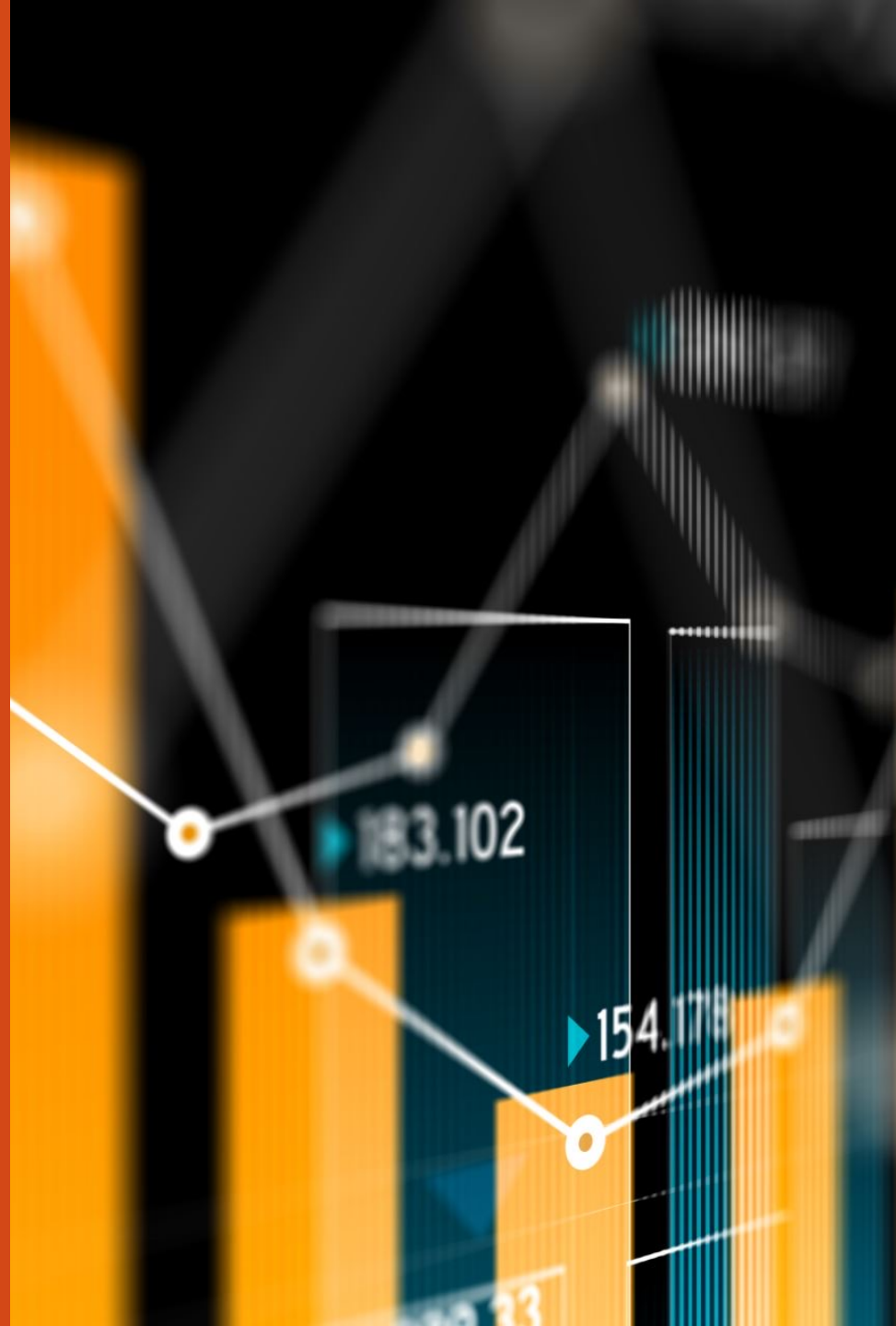
Case 2: E-commerce Platform for Artisan Products at Coastal Hub

- **Business Model**: This platform curates high-end artisan products and provides a marketplace for luxury goods, benefiting from high visibility and premium pricing.
- **Sales for the first three months**: $50,000, $75,000, and $95,000.
- **Cost of Goods Sold (COGS)**: 60% of sales, reflecting the procurement of premium artisan products.
- **Monthly Operating Expenses**: $30,000, primarily due to high marketing spend and platform maintenance costs.

◦ Let’s see their profit and cash positions…!

How to access the health of a firm using information published in financial statements?

Ratio Analysis



Ratio Analysis: Overview

Income Statement

	2023	2024E
Sales	$5,834,400	$7,035,600
COGS except depr.	4,980,000	5,800,000
Other expenses	720,000	612,960
Deprec.	116,960	120,000
Tot. op. costs	5,816,960	6,532,960
EBIT	17,440	502,640
Int. expense	176,000	80,000
EBT	(158,560)	422,640
Taxes (40%)	(63,424)	169,056
Net income	($ 95,136)	$ 253,584

Balance Sheets: Assets

	2023	2024E
Cash	$ 7,282	$ 14,000
S-T invest.	20,000	71,632
AR	632,160	878,000
Inventories	1,287,360	1,716,480
Total CA	1,946,802	2,680,112
Net FA	939,790	836,840
Total assets	$2,886,592	$3,516,952

Balance Sheets: Liabilities & Equity

	2023	2024E
Accts. payable	$ 324,000	$ 359,800
Notes payable	720,000	300,000
Accruals	284,960	380,000
Total CL	1,328,960	1,039,800
Long-term debt	1,000,000	500,000
Common stock	460,000	1,680,936
Ret. earnings	97,632	296,216
Total equity	557,632	1,977,152
Total L&E	$2,886,592	$3,516,952

Other Data

	2023	2024E
Stock price	$6.00	$12.17
# of shares	100,000	250,000
EPS	-$0.95	$1.01
DPS	$0.11	$0.22
Book val. per sh.	$5.58	$7.91
Lease payments	$40,000	$40,000
Tax rate	0.4	0.4

Liquidity Ratios

Can the company meet its short-term obligations using the resources it currently has on hand?

Forecasted Current and Quick Ratios for 2014.

$$CR_{24} = \frac{CA}{CL} = \frac{\$2,680}{\$1,040} = 2.58.$$

$$QR_{24} \text{ (Acid Test Ratio)} = \frac{CA - Inv.}{CL}$$

$$= \frac{\$2,680 - \$1,716}{\$1,040} = 0.93.$$

Comments on CR and QR

	2024E	2023	2022	Ind.
CR	2.58	1.46	2.3	2.7
QR	0.93	0.5	0.8	1.0

Expected to improve but still below the industry average.

Liquidity position is weak.

Asset Management / Efficiency Ratios

How efficiently does the firm use its assets?

How much tied up in assets for each dollar of sales?

Inventory Turnover Ratio

$$\text{Inv. Turnover} = \frac{\text{COGS}}{\text{Inventories}}$$

$$= \frac{\$5{,}800 + \$120}{\$1{,}716} = 3.45.$$

	2024E	2023	2022	Ind.
Inv. T.	3.45	4.0	4.0	6.1

Comments on Inventory Turnover

- Inventory turnover is below industry average.
- Firm might have old inventory, or its control might be poor.
- No improvement is currently forecasted.

Days Sales Outstanding (or) Receivable Turnover Days

$$DSO = \frac{\text{Receivables}}{\text{Average sales per day}}$$

$$= \frac{\text{Receivables}}{\text{Sales}/365} = \frac{\$878}{\$7{,}036/365}$$

$$= 45.5 \text{ days.}$$

Appraisal of DSO

Firm collects too slowly, and situation is getting worse.

Poor credit policy.

	2024	2023	2022	Ind.
DSO	45.5	39.5	37.4	32.0

Other important one is

– Days Payable Outstanding (DPO) = Acc. Payable/COGS per day

Fixed Assets and Total Assets Turnover Ratios

$$\text{Fixed assets turnover} = \frac{\text{Sales}}{\text{Net fixed assets}}$$

$$= \frac{\$7{,}036}{\$837} = 8.41.$$

$$\text{Total assets turnover} = \frac{\text{Sales}}{\text{Total assets}}$$

$$= \frac{\$7{,}036}{\$3{,}517} = 2.00.$$

(More…)

Fixed Assets and Total Assets **Turnover Ratios**

FA turnover is expected to exceed industry average. Good.

TA turnover not up to industry average. Caused by excessive current assets (A/R and inventory).

	2024E	2023	2022	Ind.
FA TO	8.4	6.2	10.0	7.0
TA TO	2.0	2.0	2.3	2.5

Debt Management Ratios

Company have too much debt?

Can the company's earnings meet its debt servicing requirements?

Leverage Ratios: Debt Ratio

$$\text{Debt ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

$$= \frac{\$300 + \$500}{\$3{,}517} = 22.7\%.$$

(More…)

Leverage Ratios: Liabilities-to-Assets Ratio

$$\text{Liabilities/TA ratio} = \frac{\text{Total liabilities}}{\text{Total assets}}$$

$$= \frac{\$1{,}039.8 + \$500}{\$3{,}517}$$

$$= 43.8\%.$$

(More…)

Times Interest Earned Ratio

$$TIE = \frac{EBIT}{Int.\ expense}$$

$$= \frac{\$502.6}{\$80} = 6.3.$$

(More…)

Debt Management Ratios vs. Industry Averages

	2024E	2023	2022	Ind.
D/TA	22.7%	59.6%	35.6%	32.0%
TL/TA	43.8%	80.7%	54.8%	50.0%
TIE	6.3	0.1	3.3	6.2

Recapitalization improved situation.

Debt is good or bad?

Profitability Ratios

What is the company's rate of return on:

- Sales?
- Assets?

Profit Margins

Net profit margin (PM):

$$PM = \frac{NI}{Sales} = \frac{\$253.6}{\$7,036} = 3.6\%.$$

Operating profit margin (OM):

$$OM = \frac{EBIT}{Sales} = \frac{\$503}{\$7,036} = 7.1\%.$$

(More…)

Profit Margins (Continued)

Gross profit margin (GPM):

$$GPM = \frac{Sales - COGS}{Sales} = \frac{\$7{,}036 - \$5{,}800}{\$7{,}036}$$

$$GPM = \frac{\$1{,}236}{\$7{,}036} = 17.6\%.$$

Profit Margins vs. Industry Averages

	2024E	2023	2022	Ind.
PM	3.6%	-1.6%	2.6%	3.6%
OPM	7.1	0.3	6.1	7.1
GPM	17.6	14.6	16.6	15.5

Very bad in 2023, but projected to meet or exceed industry average in 2024.

Basic Earning Power (BEP)

$$BEP = \frac{EBIT}{Total\ assets}$$

$$= \frac{\$502.6}{\$3,517} = 14.3\%.$$

(More…)

Basic Earning Power vs. Industry Average

-BEP removes effect of taxes and financial leverage. Useful for comparison.

-Projected to be below average.

-Room for improvement.

	2024E	2023	2022	Ind.
BEP	14.3%	0.6%	14.2%	17.8%

Return on Assets (ROA) and Return on Equity (ROE)

$$\text{ROA} = \frac{\text{NI}}{\text{Total assets}}$$

$$= \frac{\$253.6}{\$3{,}517} = 7.2\%.$$

(More…)

Return on Assets (ROA) and Return on Equity (ROE)

$$ROE = \frac{NI}{Common\ Equity}$$

$$= \frac{\$253.6}{\$1,977} = 12.8\%.$$

(More…)

ROA and ROE vs. Industry Averages

	2024E	2023	2022	Ind.
ROA	7.2%	-3.3%	6.0%	9.0%
ROE	12.8%	-17.1%	13.3%	18.0%

Both are below average but improving.

Effects of Debt on ROA and ROE

ROA is lowered by debt-

- Interest expense lowers net income, which also lowers ROA.

ROE is enhanced by debt -

- use of debt lowers equity, and if equity is lowered more than net income, ROE would increase.

Market Value Ratios

Market value ratios incorporate the:

- High current levels of earnings and cash flow *increase* market value ratios
- High expected growth in earnings and cash flow *increases* market value ratios
- High risk of expected growth in earnings and cash flow *decreases* market value ratios

Interpreting Market Based Ratios

- **P/E:** How much investors will pay for $1 of earnings. Higher is better.

- **M/B:** How much paid for $1 of book value. Higher is better.

- P/E and M/B are high if ROE is high, risk is low.

Calculate and appraise the P/E, P/CF, and M/B ratios.

Price = $12.17.

$$EPS = \frac{NI}{Shares\ out.} = \frac{\$253.6}{250} = \$1.01.$$

$$P/E = \frac{Price\ per\ share}{EPS} = \frac{\$12.17}{\$1.01} = 12.$$

Market Based Ratios (Continued)

$$M/B = \frac{\text{Mkt. price per share}}{\text{Book value per share}}$$

$$= \frac{\$12.17}{\$7.91} = 1.54.$$

Comparison with Industry Averages

	2024E	2023	2022	Ind.
P/E	12.0	-6.3	9.7	14.2
M/B	1.5	1.1	1.3	2.9

Common Size Balance Sheets:
Divide all items by Total Assets

Assets	2022	2023	2024E	Ind.
Cash	0.6%	0.3%	0.4%	0.3%
ST Inv.	3.3%	0.7%	2.0%	0.3%
AR	23.9%	21.9%	25.0%	22.4%
Invent.	48.7%	44.6%	48.8%	41.2%
Total CA	76.5%	67.4%	76.2%	64.1%
Net FA	23.5%	32.6%	23.8%	35.9%
TA	100.0%	100.0%	100.0%	100.0%

Divide all items by Total Liabilities & Equity

Liab. & Eq.	2022	2023	2024E	Ind.
AP	9.9%	11.2%	10.2%	11.9%
Notes pay.	13.6%	24.9%	8.5%	2.4%
Accruals	9.3%	9.9%	10.8%	9.5%
Total CL	32.8%	46.0%	29.6%	23.7%
LT Debt	22.0%	34.6%	14.2%	26.3%
Total eq.	45.2%	19.3%	56.2%	50.0%
Total L&E	100.0%	100.0%	100.0%	100.0%

Analysis of Common Size Balance Sheets

- Computron has higher proportion of inventory and current assets than Industry.
- Computron now has more equity (which means LESS debt) than Industry.
- Computron has more short-term debt than industry, but less long-term debt than industry.

Common Size Income Statement:
Divide all items by Sales

	2022	2023	2024E	Ind.
Sales	100.0%	100.0%	100.0%	100.0%
COGS	83.4%	85.4%	82.4%	84.5%
Depr.	0.6%	2.0%	1.7%	4.0%
Other exp.	9.9%	12.3%	8.7%	4.4%
EBIT	6.1%	0.3%	7.1%	7.1%
Int. Exp.	1.8%	3.0%	1.1%	1.1%
Pre-tax earn.	4.3%	-2.7%	6.0%	5.9%
Taxes	1.7%	-1.1%	2.4%	2.4%
NI	2.6%	-1.6%	3.6%	3.6%

Analysis of Common Size Income Statements

- Computron has lower COGS (86.7) than industry (84.5), but higher other expenses.

- Result is that Computron has similar EBIT (7.1) as industry.

Percentage Change Analysis: % Change from First Year (2022)

Income St.	2022	2023	2024E
Sales	0.0%	70.0%	105.0%
COGS	0.0%	73.9%	102.5%
Depr.	0.0%	518.8%	534.9%
Other exp.	0.0%	111.8%	80.3%
EBIT	0.0%	-91.7%	140.4%
Int. Exp.	0.0%	181.6%	28.0%
EBT	0.0%	-208.2%	188.3%
Taxes	0.0%	-208.2%	188.3%
NI	0.0%	-208.2%	188.3%

Analysis of Percent Change Income Statement

We see that 2024 sales grew 105% from 2022, and that NI grew 188% from 2022.

So Computron has become more profitable.

Percentage Change Balance Sheets: Assets

Assets	2022	2023	2024E
Cash	0.0%	-19.1%	55.6%
ST Invest.	0.0%	-58.8%	47.4%
AR	0.0%	80.0%	150.0%
Invent.	0.0%	80.0%	140.0%
Total CA	0.0%	73.2%	138.4%
Net FA	0.0%	172.6%	142.7%
TA	0.0%	96.5%	139.4%

Percentage Change Balance Sheets: Liabilities & Equity

Liab. & Eq.	2022	2023	2024E
AP	0.0%	122.5%	147.1%
Notes pay.	0.0%	260.0%	50.0%
Accruals	0.0%	109.5%	179.4%
Total CL	0.0%	175.9%	115.9%
LT Debt	0.0%	209.2%	54.6%
Total eq.	0.0%	-16.0%	197.9%
Total L&E	0.0%	96.5%	139.4%

Analysis of Percent Change Balance Sheets

We see that total assets grew 139%, while sales grew only 105%.

So, asset utilization remains a problem.

Potential Problems and Limitations of Ratio Analysis

- Comparison with industry averages is difficult if the firm operates many different divisions.
- Seasonal factors can distort ratios.
- Window dressing techniques can make statements and ratios look better.
- Different accounting and operating practices can distort comparisons.

Qualitative Factors to be considered as well…!

There is greater risk if:

- revenues tied to a single customer
- revenues tied to a single product
- reliance on a single supplier?
- High percentage of business is generated overseas?

What is the competitive situation?

What products are in the pipeline?

What are the legal and regulatory issues?


Thank
you