

# FINANCIAL STATEMENT ANALYSIS

## Lecture 6

### COMPARATIVE FINANCIAL STATEMENT ANALYSIS

Lecturer; DR. Stephen Ndung'u

#### MID SEMESTER ASSESSMENT

### FINANCIAL STATEMENT ANALYSIS

#### MARKING SCHEME

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**Instructions:**

Answer ALL questions

#### Question one

Required

1. Prepare the following comparative financial statements showing the percentage increase or decrease in the various items.
  - i. Consolidated Statement of comprehensive income. (8 marks)
  - ii. Consolidated Statement of financial position. (11 marks)
2. Which items increased with the highest margin in both the income statement and the balance sheet? (2 marks)
3. Comment on the performance of the business over the two years. (4 marks)

Consolidated Statement of comprehensive income. (8 marks)

**Superior Office Supply Company**  
**Consolidated statement of comprehensive income**  
**Years Ended December 31**

	<b>2020</b>	<b>2019</b>	<b>Increase or (decrease)</b>	
			<b>Amount</b>	<b>Percent</b>
Sales	2,198,600	2,114,100	84,500	4.0%
Less: Returns and allowances	<u>(98,900)</u>	<u>(90,900)</u>	8,000	8.8%
Net sales	2,099,700	2,023,200	76,500	3.8%
Cost of goods sold	<u>(1,364,800)</u>	<u>(1,294,800)</u>	70,000	5.4%
Gross profit	734,900	728,400	6,500	0.9%
Selling expenses	(252,000)	(222,600)	29,400	13.2%
Administrative expenses	(283,500)	(293,400)	(9,900)	(3.4%)
Total operating expenses	<u>(535,500)</u>	<u>(516,000)</u>	19,500	3.8%
Operating income	199,400	212,400	(13,000)	(6.1%)
<b>Other revenue and gains</b>				
Interest and dividends	2,900	2,100	800	38.1%
<b>Other expenses and losses</b>				
Interest expense	<u>(34,800)</u>	<u>(39,900)</u>	(5,100)	(12.8%)
Net income	<u>167,500</u>	<u>174,600</u>	(7,100)	(4.1%)

**Superior Office Supply Company**  
**Consolidated statement of financial position**  
**As at December 31**

	2020	2019	Increase or (decrease) Amount	Percent
<b>Assets</b>				
<b>Noncurrent assets</b>				
Property, plant, and equipment	990,500	945,500	45,000	4.8%
Less: Accumulated depreciation	365,000	306,800	58,200	19.0%
Net property, plant, and equip.	625,500	638,700	(13,200)	(2.1%)
Intangible assets	<u>110,000</u>	<u>100,000</u>	10,000	10.0%
Total noncurrent assets	<u>2,091,000</u>	<u>1,991,000</u>	100,000	5.02%
<b>Current assets</b>				
Cash and cash equivalents	455,200	414,200	41,000	9.9%
Short-term investments	35,500	36,900	(1,400)	(3.8%)
Accounts receivable, net	286,200	255,800	30,400	11.9%
Inventory	492,100	456,900	35,200	7.7%
Prepaid expenses	<u>52,300</u>	<u>50,500</u>	1,800	3.6%
Total current assets	<u>1,321,300</u>	<u>1,214,300</u>	107,000	8.8%
Total assets	<u>2,056,800</u>	<u>1,953,000</u>	103,800	5.3%
<b>Liabilities and Owner's Equity</b>				
<b>Current liabilities</b>				
Accounts payable	414,700	388,900	25,800	6.6%
Short-term notes payable	50,000	24,500	25,500	104.1%
Other current liabilities	<u>185,600</u>	<u>215,400</u>	(29,800)	(13.8%)
Total current liabilities	<u>650,300</u>	<u>628,800</u>	21,500	3.4%
<b>Long term liabilities</b>				
Long-term debt	<u>551,400</u>	<u>581,600</u>	(30,200)	(5.2%)
Total liabilities	1,201,700	1,210,400	(8,700)	(0.7%)
Capital	<u>855,100</u>	<u>742,600</u>	112,500	15.1%
Total liabilities and owner's equity	<u>2,056,800</u>	<u>1,953,000</u>	103,800	5.3%

Which items increased with the highest margin in both the income statement and the balance sheet? (2 marks)

- Interest and dividends (income statement)
- Short-term notes payable (balance sheet)

Comment on the performance of the business over the two years.

(4 marks)

**Balance sheet**

The comparative balance sheets show that some significant changes have occurred between 2019 and 2020. Total current assets have increased by almost 9%, and Property, Plant, and Equipment increased by almost 5%. We also see that total liabilities have decreased by almost 1%, so there was no net borrowing. This means that

the increase in total assets must be primarily the result of business net income unless there were owner investments.

**Income statement**

Unfortunately, net income (although positive) has decreased by 4%, and operating income has decreased by 6%. However, gross profit increased by almost 1%! How could this happen? It appears that gross profit has increased because sales have increased, but the company did not control the selling expenses and cost of goods sold tightly enough. These two expenses increased much faster than sales revenue. As a manager, this will require you to create a system that controls expenses more carefully. You should also investigate the increased rate of merchandise returns.

**Question two**

Required

a. Using the following ratios for the past three years, evaluate the loan application.

- 1. Current ratio (3 marks)
- 2. Acid test ratio (3 marks)
- 3. Accounts receivable turnover ratio (3 marks)
- 4. Inventory turnover ratio (3 marks)
- 5. Debt ratio (3 marks)
- 6. Capital gearing ratio (3 marks)

$$\begin{aligned}
 \text{Current ratio} &= \frac{\text{Current assets}}{\text{Current liabilities}} \\
 2018 &= \frac{305,000}{97,000} \\
 &= 3.14 \\
 2019 &= \frac{319,000}{106,000} \\
 &= 3.01 \\
 2020 &= \frac{366,000}{123,000} \\
 &= 2.98
 \end{aligned}$$

$$\begin{aligned}
 \text{Quick/acid test ratio} &= \frac{\text{Current assets} - \text{stock \& prepaid expenses}}{\text{Current liabilities}} \\
 2018 &= \frac{305,000 - 51,000}{97,000} \\
 &= 2.62 \\
 2019 &= \frac{319,000 - 78,000}{106,000} \\
 &= 2.27 \\
 2020 &= \frac{366,000 - 127,000}{123,000} \\
 &= 1.94
 \end{aligned}$$

$$\text{Accounts receivable turnover} = \frac{\text{Credit sales}}{\text{Average debtors}}$$

$$\begin{aligned} 2018 &= \frac{344,000}{49,000} \\ &= 7.02 \end{aligned}$$

$$\begin{aligned} 2019 &= \frac{397,000}{62,000} \\ &= 6.4 \end{aligned}$$

$$\begin{aligned} 2020 &= \frac{456,000}{119,000} \\ &= 3.83 \end{aligned}$$

$$\text{Debt ratio} = \frac{\text{Total debts}}{\text{Total assets}} \times 100$$

$$\begin{aligned} 2018 &= \frac{48,000}{305,000} \times 100 \\ &= 15.74\% \end{aligned}$$

$$\begin{aligned} 2019 &= \frac{58,000}{319,000} \times 100 \\ &= 18.18\% \end{aligned}$$

$$\begin{aligned} 2020 &= \frac{47,000}{366,000} \times 100 \\ &= 12.84\% \end{aligned}$$

$$\text{Capital gearing ratio} = \frac{\text{Interest bearing debt}}{\text{Shareholders equity} + \text{interest bearing debt}} \times 100$$

$$\begin{aligned} 2018 &= \frac{48,000}{48,000 + 160,000} \times 100 \\ &= 23.08\% \end{aligned}$$

$$\begin{aligned} 2019 &= \frac{58,000}{58,000 + 155,000} \times 100 \\ &= 27.23\% \end{aligned}$$

$$\begin{aligned} 2020 &= \frac{47,000}{47,000 + 196,000} \times 100 \\ &= 19.34\% \end{aligned}$$

b. Do you agree with the loan officer's recommendation? (7 marks)

All the ratios seem satisfactory and it would be okay to grant the full loan.

- The current ratio is within the recommended range of 2:1 and has minimal fluctuations over the three years.
- The quick ratio is within the recommended range of 1:1 and has minimal fluctuations over the three years.

- The accounts receivables turnover has been on a significant decline and it should be of concern to the management and the lenders.
- The debt ratio is healthy and below the recommended ratio of 50%.
- Interest bearing debt ratio is healthy and the business can take additional debt comfortably without increasing the risk.

### Question three

Required

1. Calculate the trend percentages of the company income statement, by taking 2017 as base year. (8 marks)

#### Income statement summary

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
	<b>(000)</b>	<b>(000)</b>	<b>(000)</b>	<b>(000)</b>
Turnover	<u>100</u>	<u>89</u>	<u>79</u>	<u>96</u>
Operating Profit	100	81	53	66
Taxation	<u>(100)</u>	<u>(100)</u>	<u>(51)</u>	<u>(60)</u>
Profit after taxation	100	73	52	69
Dividends	<u>(100)</u>	<u>(181)</u>	<u>(38)</u>	<u>(52)</u>
Retained profit	<u>(100)</u>	<u>(554)</u>	<u>9</u>	<u>5</u>
Earnings per share	100	73	52	69
Dividend per share	100	181	38	52

2. Calculate the trend percentages of the company balance sheet, by taking 2017 as base year. (13 marks)

#### Balance sheet summary

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>
	<b>(000)</b>	<b>(000)</b>	<b>(000)</b>	<b>(000)</b>
Fixed assets	100	81	77	70
Noncurrent assets	<u>100</u>	<u>106</u>	<u>144</u>	<u>182</u>
	100	100	87	86
Current assets	100	76	73	82
Current liabilities	<u>(100)</u>	<u>(306)</u>	<u>(272)</u>	<u>(309)</u>
Net current assets	<u>100</u>	<u>28</u>	<u>32</u>	<u>35</u>
Net assets	<u>100</u>	<u>40</u>	<u>43</u>	<u>45</u>

#### Financed by:

Share capital	100	100	100	100
Reserves	100	5	7	8
Shareholders' funds	100	35	36	36
Noncurrent liabilities	<u>100</u>	<u>109</u>	<u>144</u>	<u>167</u>
Shareholders' funds and liabilities	<u>100</u>	<u>40</u>	<u>43</u>	<u>45</u>

3. Analyze and comment on the statements of financial performance and trend percents from above. (4 marks)

In the initial years, profit was declining but the business has been on the recovery path. Earnings per share and dividends have been declining. The company seems to be over investing in noncurrent assets while liabilities have been increasing.

#### Question four

- a. Distinguish between technical analysis and fundamental analysis using appropriate examples. (9 marks)

**Technical analysis**, or charting, searches for patterns in the price or volume history of a stock to predict future price movements e.g. a financial analyst evaluating the performance of a certain company shares over a 20 year period.

**Fundamental analysis**, which is more widely accepted and applied, is the process of determining the value of a company by analyzing and interpreting key factors for the economy, the industry, and the company. A main part of fundamental analysis is evaluation of a company's financial position and performance.

- b. Business and financial statement analysis are important to different groups or situations. Explain eight groups or situations that may require such information. (16 marks)

**Managers.** Analysis of financial statements can provide managers with clues to strategic changes in operating, investing, and financing activities. Managers also analyze the businesses and financial statements of competing companies to evaluate a competitor's profitability and risk. Such analysis allows for *inter firm comparisons*, both to evaluate relative strengths and weaknesses and to *benchmark* performance.

**Mergers, acquisitions, and divestitures.** Business analysis is performed whenever a company restructures its operations, through mergers, acquisitions, divestitures, and spin-offs. Investment bankers need to identify potential targets and determine their values, and security analysts need to determine whether and how much additional value is created by the merger for both the acquiring and the target companies.

**Financial management.** Managers must evaluate the impact of financing decisions and dividend policy on company value. Business analysis helps assess the impact of financing decisions on both future profitability and risk.

**Directors.** As elected representatives of the shareholders, directors are responsible for protecting the shareholders' interests by vigilantly overseeing the company's activities. Both business analysis and financial statement analysis aid directors in fulfilling their oversight responsibilities.

**Regulators.** The Kenya Revenue Authority applies tools of financial statement analysis to audit tax returns and check the reasonableness of reported amounts.

**Labor unions.** Techniques of financial statement analysis are useful to labor unions in collective bargaining negotiations.

**Customers.** Analysis techniques are used to determine the profitability (or staying power) of suppliers along with estimating the suppliers' profits from their mutual transactions.

Competitors use financial statements to gauge their performance against their rivals.

