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COURSE NAME: FINANCIAL STATEMENTS ANALYSIS

An Exam on Financial Statements Analysis

Presented to

The Academic Department

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For the Degree in Business Administration

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Introduction:

According to (Wild John J) “Financial statement analysis applies analytical tools to financial statements and related data for making business decisions.”

(Kenton)(Investopedia) “Financial statement analysis is the process of analyzing a company's [financial statements](https://www.investopedia.com/terms/f/financial-statements.asp) for decision-making purposes. External stakeholders use it to understand the overall health of an organization as well as to evaluate financial performance and business value. Internal constituents use it as a monitoring tool for managing the finances.” (Kenton)(Investopedia)

(Libby)The exam introduces how “financial information is primarily communicated through financial statements, which include the Income Statement, Statement of Owner's Equity, Balance Sheet, and Statement of Cash Flows and Disclosures.

Also the exam highlight, identifies the different user of accounting information within an organization and also its external users.” (Libby) (Principles of Account 2009)

(Wild John J, 2019) The question from the exam provide “comparable information that focuses on sustainable performance of companies;” this includes “comparable metrics using techniques such as horizontal and vertical analysis.” (Libby) (Wild John J) We also examine how to compute financial ratios for analysis and interpretation, such as, “inventory turnover, price-to-earnings and times interest earned ratios.” (Wild John J) (Libby)

Lastly, we calculate and use financial ratios to assess profitability, liquidity, and solvency the as well as match ration with its computational formula.

Questions to answer

1. What are the major categories of information in the annual report financial section?

(Hayes) Typically, an annual report will contain the following sections:

* (Hayes) General corporate information
* (Hayes) Operating and financial highlights
* (Hayes) [Letter to the shareholders](https://www.investopedia.com/terms/s/shareholder-letter.asp) from the CEO
* (Hayes) Narrative text, graphics, and photos
* (Hayes) [Management's discussion and analysis (MD&A)](https://www.investopedia.com/terms/m/mdanalysis.asp)
* (Hayes) (Investopedia) Financial statements, including the balance sheet, income statement, and cash flow statement
* (Hayes) Notes to the financial statements
* (Hayes) Auditor's report
* (Hayes) Summary of financial data
* (Hayes) Accounting policies

**1.** (Libby)(Studyblue.com) ”Summarized financial data - Key figures covering a period of 5 or 10 years”

2. (Libby)(Studyblue.com) ”Management’s discussion and analysis (MD&A) - Honest and detailed analysis of the company’s financial condition and operating results—a must-read for any serious financial statement user” (Libby)(Studyblue.com)

3. (Libby)”Management’s report on internal Control - Statements that describe management’s responsibility for ensuring adequate internal control over financial reporting and report on the” (Principles of Accounting, 2009)

effectiveness of those controls during the year

4. (Libby)”Auditor’s report - Auditor’s conclusion about whether GAAP was followed (and for public companies, whether internal controls were effective)”

5. (Libby)”Comparative financial statements - Multiyear presentation of the four basic statements”

6. (Libby)Financial statement notes - “Further information about the financial statements, crucial to understanding the financial statement data” (Libby)(Studyblue.com)

7. (Libby)”Recent stock price data - Brief summary of highs and lows during the year” (Libby)(Studyblue.com)

8. (Libby)”Unaudited quarterly data - Condensed summary of each quarter’s results”

9. (Libby)”Directors and officers - List of the individuals who are overseeing and running the company” (Libby)(Studyblue.com)

(Hayes) “The Annual report is typically issued to shareholders and other stakeholders who use it to evaluate the firm's financial performance and to make investment decisions.”(Investopedia)

1. What is the general goal of trend analysis?

(Wild and Shaw) “Trend analysis is computing trend percent’s that show patterns in data across periods. Trend analysis expresses a percent of base, not a percent of change.”(Fundamental Accounting Principles, 2019)

(Hayes) “Trend analysis is based on the idea that what has happened in the past gives traders an idea of what will happen in the future.”(Investopedia)

(Libby) “The general goal of trend analysis is identifying significant sustained changes or trends. For example, trend analysis can be used to determine the dollar and percentage changes in the cost of goods sold this year relative to prior years.”

1. How is a year-to-year percentage change calculated?

(Libby) “A year-to-year percentage change expresses the current year’s dollar

change as a percentage of the prior year’s total by using the following calculation:”

**Year-to –Year Change This Year (Current Year’s Total** − **Prior Year’s Total)**

**Change (%)** = **Prior Year’s Total** × **100** = **Prior Year’s Total x 100**

1. What is ratio analysis? Why is it useful?

(Libby) “Ratio analyses help financial statement users to understand relationships among various items reported in the financial statements. This type of analysis compares the amounts for one or more line items to the amounts for other line items in the same year.” (Principles of Accounting, 2009)

(Libby) “Ratio analyses are useful because they consider differences in the size of the amounts being compared, which allows users to evaluate how well a company has performed given the level of its other resources. In fact, some of the most popular ratios, such as net profit margin and debt to assets ratios, are taken directly from the common size statements.” (Principles of Accounting, 2009)

1. What benchmarks are commonly used for interpreting ratios?

(Bond) “A common benchmark is an intracompany comparison which uses prior years of the same company as a benchmark.”

 (Libby) “Benchmarks can include the company’s prior year results and those of close competitors, as well as industry averages. In a competitive economy, companies strive to outperform one another, so comparisons with other companies can suggest which are likely to survive and thrive in the long run.”

Therefore, commonly used benchmark for interpreting ratios are as follows:

* (Bond) “Intracompany comparison”
* (Libby) “Close competitors”
* (Libby) “Industry averages”
1. Into what three categories of performance are most financial ratios classified? To what in particular does each of these categories relate?

(Libby) “Most analysts classify ratios into three categories as listed below”:

* “Profitability ratios” (Libby)
* “Liquidity ratios” (Libby)
* “Solvency ratios” (Libby)

Each category is related as follows:

1. (Libby) “Profitability ratios - which relate to the company’s performance in the current period in particular, the company’s ability to generate income.” (Principles of Accounting, 2009) (Slideplayer.com)

2. (Libby) “Liquidity ratios - which relate to the company’s short-term survival in particular, the company’s ability to use current assets to repay liabilities as they become due.” (Principles of Accounting, 2009) (Slideplayer.com)

3. (Libby) “Solvency ratios - which relate to the company’s long-run survival in particular, the company’s ability to repay lenders when debt matures and to make the required interest payments prior to the date of maturity.” (Principles of Accounting, 2009) (Slideplayer.com)

7. Calculations and Interpretations of Horizontal (Trend) Analyses



What are the two most significant year-to-year changes in terms of dollars and in terms of percentages?

The most significant year to year changes in terms of dollar are:

* Net Sales $25,000.00
* Cost of Goods $13,000.00

The most significant year to year changes in terms of percentages?

* Selling, general and administrative expenses 100%
* Gross profit 40%

8. **Analyzing the Inventory Turnover Ratio**

A manufacturer reported an inventory turnover ratio of 8.6 during 2009. During 2010, management introduced a new inventory control system that was expected to reduce average inventory levels by 25 percent without affecting sales volume or cost of goods sold.

Given these circumstances, would you expect the inventory turnover ratio to

increase or decrease during 2010? Explain.

* In my opinion and according to (Libby) “the expected inventory turnover ratio will increase”
* In my opinion and according to (Libby) “Inventory management new inventory control system monitor is an effective and efficient way to ensure that inventory is reduced.”
* In my opinion and according to (Libby) “If we take into consideration that the inventory levels are reduced by 25% this is an indication that manufacturer will be able to sell his products at an unbeatable price this also reduce inventory.”
* In my opinion and according to (Libby) “Manufacturer is avoiding over spending; with the high turnover rate of the products the manufacturer ratio will increase for the year 2010.”

 “ Inventory Turnover Ratio = Cost of Goods Sold\Average Inventory” (Libby) (Studyblue)

9. **Analyzing the Impact of Accounting Alternatives**

Nevis Corporation operates in an industry in which costs are falling. The company is considering changing its inventory method from FIFO to LIFO and wants to determine the impact that the change would have on selected accounting ratios in future years.

In general, what impact would you expect on the following ratios: net profit margin, fixed asset turnover, and current ratio?

In my opinion and according to (Libby) (Hayes) “The use of LIFO inventory method

at Nevis Corporation when the costs are falling would result in a negative impact

on the corporation net profit margin, fixed asset turnover, current ratio. This could

result in a reduction in the accounting ratios.” (Accounting Principles 2009)

(commons.und.edu)

10. **Inferring Financial Information Using the P/E Ratio**

In 2009, Big W Company reported earnings per share of $2.50 when its stock was selling for $50.00. In 2010, its earnings increased by 10 percent. If all other relationships remain constant, what is the price of the stock? Explain.

Investor of Big W Company were willing to pay 20 times its earning per shares to buy a stock.

Price Earning Ratio = Stock

 Earning Per Share

P|E= $50.00 = $20

 $2.50

10% ($2.50\$50.00) = $5

Stock 2010 = $50+ $5 = $55

11. **Identifying Relevant Ratios**

Identify the ratio that is relevant to answering each of the following questions.

1. How much net income does the company earn from each dollar of sales?
* “Profitability ratios” (Libby)
1. Is the company financed primarily by debt or equity?

“Solvency ratios – “Debts to assets” (Libby)

1. How many dollars of sales were generated for each dollar invested in fixed assets?
* “Liquidity ratios – Fixed assets turnover” (Libby)
1. How many days, on average, does it take the company to collect on credit sales made to customers?
* “Liquidity ratios – Receivables turnover” (Libby)
1. How much net income does the company earn for each dollar owners have invested in it?
* “Profitability ratios- Net profit margin” (Libby)
1. Does the company have sufficient assets to convert into cash for paying liabilities as they come due in the upcoming year?
* “Liquidity ratios – Current Ratio” (Libby)

12. **Interpreting Ratios**

Generally speaking, do the following indicate good or bad news?

1. Increase in times interest earned ratio. – “Good News” (Libby)

2. Decrease in days to sell. – “Good News” (Libby)

3. Increase in gross profit percentage.- “Good News” (Libby)

4. Decrease in EPS.- “Bad News” (Libby)

5. Increase in asset turnover ratio.- “Good News” (Libby)

13. **Preparing and Interpreting a Horizontal (Trend) Analysis**

The average price of a gallon of gas in 2005 jumped $0.43 (24 percent) from $1.81 in 2004 to $2.24 in 2005. Let’s see whether these changes are reflected in the income statement of Chevron Corp. for the year ended December 31, 2005 (amounts in millions).



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2005 | 2004 | $Chg  | % Chg |
| Total revenues |  $ 198,200.00  |  $ 155,300.00  |  $ 42,900.00  | 27.6% |
| Costs of crude oil and products  |  $ 140,902.00  |  $ 104,948.00  |  $ 35,954.00  | 34.3% |
| Other operating costs |  $ 32,101.00  |  $ 29,801.00  |  $ 2,300.00  | 7.7% |
| Income before income tax expense |  $ 25,197.00  |  $ 20,551.00  |  $ 4,646.00  | 22.6% |
| Income tax expense |  $ 11,098.00  |  $ 7,223.00  |  $ 3,875.00  | 53.6% |
| Net Income |  $ 14,099.00  |  $ 13,328.00  |  $ 771.00  | 5.8% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2005 | 2004 | $Chg  | % Chg |
| Gas | 2.24 | 1.81 | 0.43 | 23.8% |

***Required:***

Conduct a horizontal analysis by calculating the year-to-year changes in each line item expressed in dollars and in percentages (rounded to one decimal place). How did the change in gas prices compare to the changes in Chevron Corp.’s total revenues and costs of crude oil and products?

The changes in gas prices compare to revenues and crude oil products:

Gas price increase by 24%

Revenue increase by 27.6 % that is 3.6 % more than Gas

Crude oil and products increase by 34.3% which is 10.3% more than gas.

Crude oil and products sold more than Gas.

14. **Preparing and Interpreting a Vertical (Common Size) Analysis**

Use the information for Chevron Corp. from the previous question to conduct a vertical (common size) analysis of the income statements and then answer the following questions.

***Required:***

1. Was Chevron able to raise gas prices to offset the increase in its costs of crude oil and products? How did you know?

3. Did other operating costs rise as fast as gas prices? How did you know? Why do you think this is so?

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2005 |  | 2004 |  |
| Total revenues |  $ 198,200.00  | 100% |  $ 155,300.00  | 100% |
| Costs of crude oil and products  |  $ 140,902.00  | 71% |  $ 104,948.00  | 68% |
| Other operating costs |  $ 32,101.00  | 16% |  $ 29,801.00  | 19% |
| Income before income tax expense |  $ 25,197.00  | 13% |  $ 20,551.00  | 13% |
| Income tax expense |  $ 11,098.00  | 6% |  $ 7,223.00  | 5% |
| Net Income |  $ 14,099.00  | 7% |  $ 13,328.00  | 9% |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | 2005 |  | 2004 |  |
| Gas | 2.24 | 0% | 1.81 | 0% |

1. Was Chevron able to raise gas prices to offset the increase in its costs of crude oil and products? No, this is because costs of crude oil and products reduced by 3% whilst Gas price was 0% that is no increase to offset the costs.
2. Did other operating costs rise as fast as gas prices? How did you know? Why do you think this is so? No. The year 2005 operating cost declined by 3%.

15. **Computing a Commonly Used Solvency Ratio**

Use the information for Chevron Corp. in question 13 for this question.

***Required:***

Interest expense in the amount of $482 million was included with Other Operating Costs in 2005 ($406 million in 2004). Compute the times interest earned ratios for each year (round to one decimal place). In your opinion, does Chevron generate sufficient net income (before taxes and interest) to cover the cost of debt financing?

|  |  |  |
| --- | --- | --- |
|  | 2005 | 2004 |
| Interest expenses |  48,200,000.00  |  40,600,000.00  |
| Net Income |  14,099,000.00  |  13,328,000.00  |
| Income Tax Expense |  11,098,000.00  |  72,230,000.00  |
|  |  |  |
|  | 152.3% | 310.7% |

Chevron ability to service debt according to TIE ratio has declined.

15. **Matching Each Ratio with Its Computational Formula**

Match each ratio or percentage with its formula by entering the appropriate letter for each numbered item.

**Ratios or Percentages Formula**

\_\_C\_ 1. Current ratio

\_\_A\_ 2. Net profit margin

\_D\_\_ 3. Inventory turnover

\_L\_\_ 4. Asset turnover

\_\_M\_ 5. Fixed asset turnover

\_I\_\_ 6. Free cash flow

\_\_K\_ 7. Return on equity

\_\_H\_ 8. Times interest earned

\_\_G\_ 9. Debt to assets

\_J\_\_ 10. Price/earnings

\_\_E\_ 11. Receivables turnover

\_F\_\_ 12. Earnings per share

\_B\_\_ 13. Gross profit percentage

A. Net income ÷ Net sales revenue.

B. (Net sales revenue − Cost of goods sold) ÷ Net sales revenue.

C. Current assets ÷ Current liabilities.

D. Cost of goods sold ÷ Average inventory.

E. Net credit sales revenue ÷ Average net receivables.

F. Net income ÷ Average number of common shares outstanding.

G. Total liabilities ÷ Total assets.

H. (Net income + Interest expense + Income tax expense) ÷ Interest expense.

I. Net cash flows from operating activities − Purchases of property and equipment − Dividends paid

J. Current stock price per share ÷ Earnings per share.

K. Net income ÷ Average total stockholders’ equity.

L. Net sales revenue ÷ Average total assets

M. Net sales revenue ÷ Average net fixed assets.

## (Kenton) What Are the Advantages of Financial Statement Analysis?

(Kenton) “Financial statement analysis evaluates a company’s performance or value through a company’s balance sheet, income statement, or statement of cash flows. By using a number of techniques such as horizontal, vertical, or ratio analysis, investors may develop a more nuanced picture of a company’s financial profile.” (Investopedia)

CONCLUSION

My role in my current position at work does not grant access to the financial statement information in order to analyzed. However, by studying and examining the questions in relation to financial statements analysis I learnt the importance of the “financial statement information and its usefulness to its users external and internal users.” (Libby)

I also learn how to properly analyze the financial statement. In addition, the exam help me to appreciate “three techniques that is horizontal, vertical and ratio analysis” that (Kenton) “analysts use when they make an analysis of the financial statements.” (Kenton).

The exam teaches how an “analysts measure performance by computing various percentages and ratios, which are based on information reported in the financial statements.” (Libby) I have learnt terms such as “trend analysis which expresses a percent of base, not a percent of change” (Wild John J)(Slideshare.net) In addition I was able to calculate and interpreted “horizontal trend analysis this includes subtracting the current year from the base year which equals to a dollar change and that change divided by the base year multiply by 100 equals to the percentage change and an increase would suggest that the company’s performance is good and a decrease is an indication of company not performing so well this could be as a result of many factors.” (Wild John J)

1. I also learn how to compute a “solvency ratio analysis which is the company’s ability to meet long-term obligations and generate future revenues.” (Wild John J) The question that was raised (number 15 see question above) help me to appreciate that a “lower ratio is an indication the company is not able to meet their obligation, whilst a higher ratio is an indication that the company’s has the ability to both meet its obligations and provide security to its creditors over the long run.” (Wild John J) (Bond)

In conclusion, I have found the information to be very valuable, in the event that one day I may have my own business or in the event I would like to invest in a company, the knowledge gain would greatly assist me in that regard, since I would be well equipped in knowing how to analyze the company’s financial statements so as determined whether to invest because it would prove beneficial or not.

This material is of great importance; even thou I am familiar with accounting standards by examining the question posed I was better able to put things into perspective and be guided accordingly.

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